Target Symbol	Gene Abnormality	Citation(1)	Link(1)	Citation(2)	Link(2)	Citation(3)	Link(3)
ABL1/2	ABL1/2 gene fusions (BCR-ABL1, etc.)	Greuber, E. K., Smith-Pearson, P., Wang, J., & Pendergast, A. M. (2013). Role of ABL family kinases in cancer: From leukaemia to solid tumours. Nature Reviews Cancer, 13(8), 559-571. doi:10.1038/nrc3563	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935732/				
ACVR1	ACVR1	Taylor, K. R., Vinci, M., Bullock, A. N., & Jones, C. (2014). ACVR1 mutations in DIPG: lessons learned from FOP. Cancer Research, 74(17), 4565–4570. http://doi.org/10.1158/0008-5472.CAN-14-1298	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4154859/				
ALK	ALK and ALK gene fusions	Holla, V. R., Elamin, Y. Y., Bailey, A. M., Johnson, A. M., Litzenburger, B. C., Khotskaya, Y. B., … Simon, G. R. (2017). ALK: a tyrosine kinase target for cancer therapy. Cold Spring Harbor Molecular Case Studies, 3(1), a001115. http://doi.org/10.1101/mcs.a001115	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5171696/				
BRAF	BRAF	Kieran, M. W. (2014). Targeting BRAF in Pediatric Brain Tumors. American Society of Clinical Oncology Educational Book, 34. doi:10.14694/edbook_am.2014.34.e436	https://meetinglibrary.asco.org/record/89039/edbook#fulltext	Dahiya S, Emnett RJ, Haydon DH, et al. BRAF-V600E mutation in pediatric and adult glioblastoma. Neuro Oncol. 2014;16:318-319.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895374/		
CDK12	EWSR1-FLI1	Iniguez, A. B., Stolte, B., Wang, E. J., Conway, A. S., Alexe, G., Dharia, N. V., . . . Stegmaier, K. (2018). EWS/FLI Confers Tumor Cell Synthetic Lethality to CDK12 Inhibition in Ewing Sarcoma. Cancer Cell, 33(2). doi:10.1016/j.ccell.2017.12.009	https://www.ncbi.nlm.nih.gov/pubmed/29358035				
CSF1R	CSF1R gene fusions	Rovida, E., & Sbarba, P. D. (2015). Colony-Stimulating Factor-1 Receptor in the Polarization of Macrophages: A Target for Turning Bad to Good Ones? Journal of Clinical & Cellular Immunology, 06(06). doi:10.4172/2155-9899.1000379	https://www.omicsonline.org/open-access/colonystimulating-factor1-receptor-in-the-polarization-of-macrophagesa-target-for-turning-bad-to-good-ones-2155-9899-1000379.pdf	Butowski, N., Colman, H., Groot, J. F., Omuro, A. M., Nayak, L., Wen, P. Y., . . . Prados, M. (2015). Orally administered colony stimulating factor 1 receptor inhibitor PLX3397 in recurrent glioblastoma: An Ivy Foundation Early Phase Clinical Trials Consortium phase II study. Neuro-Oncology, 18(4), 557-564. doi:10.1093/neuonc/nov245	https://academic.oup.com/neuro-oncology/article/18/4/557/2509330		
CTNNB1 (β-catenin)	CTNNB1	Shukla, N., Ameur, N., Yilmaz, I., Nafa, K., Lau, C., Marchetti, A., . . . Ladanyi, M. (2011). Oncogene Mutation Profiling of Pediatric Solid Tumors Reveals Significant Subsets of Embryonal Rhabdomyosarcoma and Neuroblastoma with Mutated Genes in Growth Signaling Pathways. Clinical Cancer Research, 18(3), 748-757. doi:10.1158/1078-0432.ccr-11-2056	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3271129/				
DDX3X	DDX3X	Epling, L. B., Grace, C. R., Lowe, B. R., Partridge, J. F., & Enemark, E. J. (2015). Cancer-associated mutants of RNA helicase DDX3X are defective in RNA-stimulated ATP hydrolysis. Journal of Molecular Biology, 427(9), 1779–1796. http://doi.org/10.1016/j.jmb.2015.02.015	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4402148/				
DOT1L	MLL gene fusions	Wong, M., Tee, A., Milazzo, G., Bell, J., Hüttelmaier, S., Polly, P., . . . Liu, T. (2017). Abstract LB-080: The histone methyltransferase DOT1L promotes neuroblastoma by regulating gene transcription. Cancer Research, 77(13 Supplement). doi:10.1158/1538-7445.am2017-lb-080	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633909/				
ERK	BRAF, MAP2K1	Tp, T. A. (2015). Targeted Therapy for MAPK Alterations in Pediatric Gliomas. Brain Disorders & Therapy, S2. doi:10.4172/2168-975x.s2-005	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4627711/	Knight, T., & Irving, J. A. (2014). Ras/Raf/MEK/ERK Pathway Activation in Childhood Acute Lymphoblastic Leukemia and Its Therapeutic Targeting. Frontiers in Oncology, 4. doi:10.3389/fonc.2014.00160	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067595/		
EWSR1-FLI1	EWSR1-FLI1	Gamberi, G., Cocchi, S., Benini, S., Magagnoli, G., Morandi, L., Kreshak, J., . . . Alberghini, M. (2011). Molecular Diagnosis in Ewing Family Tumors. The Journal of Molecular Diagnostics, 13(3), 313-324. doi:10.1016/j.jmoldx.2011.01.004	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3077725/				
EZH2	SMARCB1, SMARCA4	D'Angelo, V., Iannotta, A., Ramaglia, M., Lombardi, A., Zarone, M. R., Desiderio, V., . . . Caraglia, M. (2015). EZH2 is increased in paediatric T-cell acute lymphoblastic leukemia and is a suitable molecular target in combination treatment approaches. Journal of Experimental & Clinical Cancer Research, 34(1). doi:10.1186/s13046-015-0191-0	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4535295/	Chang, C., & Hung, M. (2011). The role of EZH2 in tumour progression. British Journal of Cancer, 106(2), 243-247. doi:10.1038/bjc.2011.551	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4132442/		
FGFR	FGFR and FGFR gene fusions	Venneti, S., & Huse, J. T. (2015). The Evolving Molecular Genetics of Low-grade Glioma. Advances In Anatomic Pathology, 22(2), 94-101. doi:10.1097/pap.0000000000000049	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4667550/	Porta, R., Borea, R., Coelho, A., Khan, S., Araújo, A., Reclusa, P., . . . Rolfo, C. (2017). FGFR a promising druggable target in cancer: Molecular biology and new drugs. Critical Reviews in Oncology/Hematology, 113, 256-267. doi:10.1016/j.critrevonc.2017.02.018	http://www.croh-online.com/article/S1040-8428(17)30085-9/fulltext	Linzey, J. R., Marini, B., Mcfadden, K., Lorenzana, A., Mody, R., Robertson, P. L., & Koschmann, C. (2017). Identification and targeting of an FGFR fusion in a pediatric thalamic "central oligodendroglioma". Npj Precision Oncology, 1(1). doi:10.1038/s41698-017-0036-8	https://www.nature.com/articles/s41698-017-0036-8
FLT3	FLK2, STK1, CD135	Grafone, T., Palmisano, M., Nicci, C., & Storti, S. (2012). An overview on the role of FLT3-tyrosine kinase receptor in acute myeloid leukemia: Biology and treatment. Oncology Reviews, 6(1), 8. doi:10.4081/oncol.2012.e8	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4419636/	Levis, M. (2013). FLT3 mutations in acute myeloid leukemia: what is the best approach in 2013? Hematology / the Education Program of the American Society of Hematology. American Society of Hematology. Education Program, 2013, 220–226. http://doi.org/10.1182/asheducation-2013.1.220	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4714709/		
Gamma secretase	NOTCH1 and FBXW7	Kolb, E. A., Gorlick, R., Keir, S. T., Maris, J. M., Lock, R., Carol, H., . . . Smith, M. A. (2011). Initial testing (stage 1) by the pediatric preclinical testing program of RO4929097, a γ-secretase inhibitor targeting notch signaling. Pediatric Blood & Cancer, 58(5), 815-818. doi:10.1002/pbc.23290	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3276746/				
Histone 3 G34R/V	Histone 3 G34R/V	Yuen, B., & Knoepfler, P. (2013). Histone H3.3 Mutations: A Variant Path to Cancer. Cancer Cell, 24(5), 567-574. doi:10.1016/j.ccr.2013.09.015	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882088/				
Histone 3 K27M	Histone 3 K27M	Yuen, B., & Knoepfler, P. (2013). Histone H3.3 Mutations: A Variant Path to Cancer. Cancer Cell, 24(5), 567-574. doi:10.1016/j.ccr.2013.09.015	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882088/				
IDH1 and IHD2	IDH1 and IDH2	Yang, H., Ye, D., Guan, K., & Xiong, Y. (2012). IDH1 and IDH2 Mutations in Tumorigenesis: Mechanistic Insights and Clinical Perspectives. Clinical Cancer Research, 18(20), 5562-5571. doi:10.1158/1078-0432.ccr-12-1773	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3897211/				
JAK1, 2, and 3	JAK1, 2, and 3	Yang, H., Ye, D., Guan, K., & Xiong, Y. (2012). IDH1 and IDH2 Mutations in Tumorigenesis: Mechanistic Insights and Clinical Perspectives. Clinical Cancer Research, 18(20), 5562-5571. doi:10.1158/1078-0432.ccr-12-1773	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3897211/				

MDM2	MDM2, TP53	Barone, G., Tweddle, D., Shohet, J., Chesler, L., Moreno, L., Pearson, A., & Maerken, T. (2014). MDM2-p53 Interaction in Paediatric Solid Tumours: Preclinical Rationale, Biomarkers and Resistance. Current Drug Targets, 15(1), 114-123. doi:10.2174/13894501113149990194	https://www.ncbi.nlm.nih.gov/pubmed/24387312	Goethem, A. V., Yigit, N., Moreno-Smith, M., Vasudevan, S. A., Barbieri, E., Speleman, F., . . . Maerken, T. V. (2017). Dual targeting of MDM2 and BCL2 as a therapeutic strategy in neuroblastoma. Oncotarget, 8(34). doi:10.18632/oncotarget.18982	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5593624/
MEK	BRAF and BRAF gene fusions, MAP2K1, NF1	Ciccarelli, C., Vulcano, F., Milazzo, L., Gravina, G. L., Marampon, F., Macioce, G., . . . Zani, B. M. (2016). Key role of MEK/ERK pathway in sustaining tumorigenicity and in vitro radioresistance of embryonal rhabdomyosarcoma stem-like cell population. Molecular Cancer, 15(1). doi:10.1186/s12943-016-0501-y	https://molecular-cancer.biomedcentral.com/articles/10.1186/s12943-016-0501-y		
Menin	MLL gene fusions	Slany, R. K. (2016). The molecular mechanics of mixed lineage leukemia. Oncogene, 35(40), 5215-5223. doi:10.1038/onc.2016.30	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2704309/		
MET	MET	Bouffet, E. (2007). Faculty of 1000 evaluation for Phase 2 study of temozolomide in children and adolescents with recurrent central nervous system tumors: A report from the Childrens Oncology Group. F1000 - Post-publication Peer Review of the Biomedical Literature. doi:10.3410/f.1098180.554184	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3123765/		
MLL	MLL gene fusions	Winters, A. C., & Bernt, K. M. (2017). MLL-Rearranged Leukemias—An Update on Science and Clinical Approaches. Frontiers in Pediatrics, 5. doi:10.3389/fped.2017.00004	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5299633/		
mTOR	TSC1, TSC2	Barrett, D., Brown, V. I., Grupp, S. A., & Teachey, D. T. (2012). Targeting the PI3K/AKT/mTOR Signaling Axis in Children with Hematologic Malignancies. Pediatric Drugs, 14(5), 299-316. doi:10.1007/bf03262236	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4214862/		
MYC	MYC translocations and amplification	Hutter, S., Bolin, S., Weishaupt, H., & Swartling, F. (2017). Modeling and Targeting MYC Genes in Childhood Brain Tumors. Genes, 8(4), 107. doi:10.3390/genes8040107	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5406854/		
MYCN	MYCN amplification	Sala, A. (2015). Editorial: Targeting MYCN in Pediatric Cancers. Frontiers in Oncology, 4. doi:10.3389/fonc.2014.00330	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4429566/		
Neoantigens	MSH2, MLH1, MSH6, PMS2 POLE, and POLD1	Schumacher, T. N., & Schreiber, R. D. (2015). Neoantigens in cancer immunotherapy. Science, 348(6230), 69-74. doi:10.1126/science.aaa4971	http://science.sciencemag.org/content/348/6230/69/tab-pdf		
NFkappaB	RELA fusion	Cahill, K. E., Morshed, R. A., & Yamini, B. (2015). Nuclear factor-κB in glioblastoma: Insights into regulators and targeted therapy. Neuro-Oncology, 18(3), 329-339. doi:10.1093/neuonc/nov265	https://academic.oup.com/neuro-oncology/article/18/3/329/2509337		
NOTCH1	NOTCH1, FBXW7	Zage, P. E., Nolo, R., Fang, W., Stewart, J., Garcia-Manero, G., & Zweidler-Mckay, P. A. (2011). Notch pathway activation induces neuroblastoma tumor cell growth arrest. Pediatric Blood & Cancer, 58(5), 682-689. doi:10.1002/pbc.23202	https://www.ncbi.nlm.nih.gov/pubmed/21744479	Ferrando, A. A. (2009). The role of NOTCH1 signaling in T-ALL. Hematology, 2009(1), 353-361. doi:10.1182/asheducation-2009.1.353	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2847371/
NT5C2	NT5C2	Meyer, J. A., Wang, J., Hogan, L. E., Yang, J. J., Dandekar, S., Patel, J. P., … Carroll, W. L. (2013). Relapse specific mutations in NT5C2 in childhood acute lymphoblastic leukemia. Nature Genetics, 45(3), 290–294. http://doi.org/10.1038/ng.2558	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681285/		
NTRK	NTRK gene fusions	Prasad, M. L., Vyas, M., Horne, M. J., Virk, R. K., Morotti, R., Liu, Z., . . . Nikiforov, Y. E. (2016). NTRKfusion oncogenes in pediatric papillary thyroid carcinoma in northeast United States. Cancer, 122(7), 1097-1107. doi:10.1002/cncr.29887	https://onlinelibrary.wiley.com/doi/pdf/10.1002/cncr.29887		
PAX-FOXO1	PAX-FOXO1	Linardic, C. M. (2008). PAX3–FOXO1 fusion gene in rhabdomyosarcoma. Cancer Letters, 270(1), 10-18. doi:10.1016/j.canlet.2008.03.035	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2575376/		
PDGFRA/B	PDGFRA/B gene fusions	Heldin, C. (2013). Targeting the PDGF signaling pathway in tumor treatment. Cell Communication and Signaling, 11(1), 97. doi:10.1186/1478-811x-11-97	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3878225/		
PI3Kα	PIK3CA	Khan, K. H., Yap, T. A., Yan, L., & Cunningham, D. (2013). Targeting the PI3K-AKT-mTOR signaling network in cancer. Chinese Journal of Cancer, 32(5), 253-265. doi:10.5732/cjc.013.10057	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3845556/		
PPM1D (WIP1)	PPM1D (WIP1)	Milosevic, J., Eissler, N., Treis, D., Wicktröm, M., Fransson, S., Sveinbjornsson, B., . . . Kogner, P. (2017). Abstract 1945: PPM1D/Wip1, promising new target in childhood cancers neuroblastoma and medulloblastoma. Cancer Research, 77(13 Supplement), 1945-1945. doi:10.1158/1538-7445.am2017-1945	http://cancerres.aacrjournals.org/content/77/13_Supplement/1945		
RAS	RAS	Ward, A. F., Braun, B. S., & Shannon, K. M. (2012). Targeting oncogenic Ras signaling in hematologic malignancies. Blood, 120(17), 3397-3406. doi:10.1182/blood-2012-05-378596	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3309527/		
RET	RET	Levy, A. S., Roth, M., Patterson, N., Scott, E., Quispe-Tintaya, W., Ewart, M. R., . . . Montagna, C. (2016). Abstract 15: Target next sequencing profiling of pediatric solid tumors: Potential use for the identification of actionable mutations. Clinical Cancer Research, 22(1 Supplement), 15-15. doi:10.1158/1557-3265.pmsclingen15-15	http://clincancerres.aacrjournals.org/content/22/1_Supplement/15	Dupain, C., Harttrampf, A. C., Urbinati, G., Geoerger, B., & Massaad-Massade, L. (2017). Relevance of Fusion Genes in Pediatric Cancers: Toward Precision Medicine. Molecular Therapy - Nucleic Acids, 6, 315-326. doi:10.1016/j.omtn.2017.01.005	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5363511/
SHP2	SHP2	Liu, X., Zheng, H., Li, X., Wang, S., Meyerson, H. J., Yang, W., … Qu, C.-K. (2016). Gain-of-function mutations of Ptpn11 (Shp2) cause aberrant mitosis and increase susceptibility to DNA damage-induced malignancies. Proceedings of the National Academy of Sciences of the United States of America, 113(4), 984–989. http://doi.org/10.1073/pnas.1508535113	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4743778/		
Smoothened	PATCH1, SMO	Rimkus, T., Carpenter, R., Qasem, S., Chan, M., & Lo, H. (2016). Targeting the Sonic Hedgehog Signaling Pathway: Review of Smoothened and GLI Inhibitors. Cancers, 8(2), 22. doi:10.3390/cancers8020022	http://www.mdpi.com/2072-6694/8/2/22		
SYT-SSX	SYT-SSX	Stegmaier, S., Leuschner, I., Poremba, C., Ladenstein, R., Kazanowska, B., Ljungman, G., . . . Koscielniak, E. (2016). The prognostic impact of SYT-SSX fusion type and histological grade in pediatric patients with synovial sarcoma treated according to the CWS (Cooperative Weichteilsarkom Studie) trials. Pediatric Blood & Cancer, 64(1), 89-95. doi:10.1002/pbc.26206	https://www.ncbi.nlm.nih.gov/pubmed/27621063		

TP53	TP53	Rausch, T., Jones, D., Zapatka, M., Stütz, A., Zichner, T., Weischenfeldt, J., . . . Korbel, J. (2012). Genome Sequencing of Pediatric Medulloblastoma Links Catastrophic DNA Rearrangements with TP53 Mutations. Cell, 148(1-2), 59-71. doi:10.1016/j.cell.2011.12.013	https://www.nature.com/articles/nature25480

Target Symbol	Citation(1)	Link(1)	Citation(2)	Link(2)
AKR1C3	Liu, C., Hsu, Y., Pan, P., Wu, M., Ho, C., Su, L., . . . Christiani, D. C. (2008). Maternal and offspring genetic variants of AKR1C3 and the risk of childhood leukemia. Carcinogenesis, 29(5), 984-990. doi:10.1093/carcin/bgn071	http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.586.2963&rep=rep1&type=pdf		
BTK	Uckun, F., & D. (2013). Novel Bruton's tyrosine kinase inhibitors currently in development. OncoTargets and Therapy, 161. doi:10.2147/ott.s33732	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594038/		
CD7	Azad, V. F., Asl, A. A., Tashvighi, M., Mofrad, N. N., Haghighi, M., & Mehrvar, A. (2015). CD7 aberrant expression led to a lineage switch at relapsed childhood acute pre-B lymphoblastic leukemia. Medical Molecular Morphology, 49(1), 53-56. doi:10.1007/s00795-015-0117-0	https://www.ncbi.nlm.nih.gov/pubmed/26242204		
CD19	Shalabi, H., Angiolillo, A., & Fry, T. J. (2015). Beyond CD19: Opportunities for Future Development of Targeted Immunotherapy in Pediatric Relapsed-Refractory Acute Leukemia. Frontiers in Pediatrics, 3, 80. http://doi.org/10.3389/fped.2015.00080	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4589648/		
CD20	Dworzak, M. N., Schumich, A., Printz, D., Pötschger, U., Husak, Z., Attarbaschi, A., … Gadner, H. (2008). CD20 up-regulation in pediatric B-cell precursor acute lymphoblastic leukemia during induction treatment: setting the stage for anti-CD20 directed immunotherapy. Blood, 112(10), 3982–3988. http://doi.org/10.1182/blood-2008-06-164129	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2581996/		
CD22	Sun, W., Gaynon, P. S., Sposto, R., & Wayne, A. S. (2015). Improving Access To Novel Agents For Childhood Leukemia. Cancer, 121(12), 1927–1936. http://doi.org/10.1002/cncr.29267	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4457598/		
CD30	Nagpal, P., Akl, M. R., Ayoub, N. M., Tomiyama, T., Cousins, T., Tai, B., … Suh, K. S. (2016). Pediatric Hodgkin lymphoma–biomarkers, drugs, and clinical trials for translational science and medicine. Oncotarget, 7(41), 67551–67573. http://doi.org/10.18632/oncotarget.11509	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5341896/		
CD33	O'Hear, C., Heiber, J. F., Schubert, I., Fey, G., & Geiger, T. L. (2015). Anti-CD33 chimeric antigen receptor targeting of acute myeloid leukemia. Haematologica, 100(3), 336–344. http://doi.org/10.3324/haematol.2014.112748	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4349272/		
CD37	De Winde, C. M., Veenbergen, S., Young, K. H., Xu-Monette, Z. Y., Wang, X., Xia, Y., … van Spriel, A. B. (2016). Tetraspanin CD37 protects against the development of B cell lymphoma. The Journal of Clinical Investigation, 126(2), 653–666. http://doi.org/10.1172/JCI81041.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4731177/		
CD38	Jiang, Z., Wu, D., Lin, S., & Li, P. (2016). CD34 and CD38 are prognostic biomarkers for acute B lymphoblastic leukemia. Biomarker Research, 4, 23. http://doi.org/10.1186/s40364-016-0080-5	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5159997/		
CD56	Aref, S., Azmy, E., El-Bakry, K., Ibrahim, L., & Mabed, M. (2017). Prognostic impact of CD200 and CD56 expression in adult acute lymphoblastic leukemia patients. Hematology, 1-8. doi:10.1080/10245332.2017.1404276	https://www.ncbi.nlm.nih.gov/pubmed/29144828	Neff, J., & Chen, D. (2017). Pediatric Philadelphia-positive B lymphoblastic leukemia with CD56 expression and L2 morphology: Case report and review of the literature. Human Pathology: Case Reports, 8, 9-12. doi:10.1016/j.ehpc.2016.12.002	https://www.sciencedirect.com/science/article/pii/S2214330016300803
CD70	Shaffer, D. R., Savoldo, B., Yi, Z., Chow, K. K. H., Kakarla, S., Spencer, D. M., … Gottschalk, S. (2011). T cells redirected against CD70 for the immunotherapy of CD70-positive malignancies. Blood, 117(16), 4304–4314. http://doi.org/10.1182/blood-2010-04-278218	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3087480/		
CD79b	Gordon, M. S., Kato, R. M., Lansigan, F., Thompson, A. A., Wall, R., & Rawlings, D. J. (2000). Aberrant B cell receptor signaling from B29 (Igβ, CD79b) gene mutations of chronic lymphocytic leukemia B cells. Proceedings of the National Academy of Sciences of the United States of America, 97(10), 5504–5509.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC25858/		
CD123/IL3RA	Testa, U., Pelosi, E., & Frankel, A. (2014). CD 123 is a membrane biomarker and a therapeutic target in hematologic malignancies. Biomarker Research, 2, 4. http://doi.org/10.1186/2050-7771-2-4	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3928610/	Bonifant, C. L., Szoor, A., Torres, D., Joseph, N., Velasquez, M. P., Iwahori, K., … Gottschalk, S. (2016). CD123-Engager T Cells as a Novel Immunotherapeutic for Acute Myeloid Leukemia. Molecular Therapy, 24(9), 1615–1626. http://doi.org/10.1038/mt.2016.116.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5113097/
CD276 (B7-H3)	Zhou, Z., Luther, N., Ibrahim, G. M., Hawkins, C., Vibhakar, R., Handler, M. H., & Souweidane, M. M. (2013). B7-H3, a potential therapeutic target, is expressed in diffuse intrinsic pontine glioma. Journal of Neuro-Oncology, 111(3), 257–264. http://doi.org/10.1007/s11060-012-1021-2	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700828/		
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CD47	An Anti-CD47 Antibody Is Effective in Pediatric Brain Tumor Models. (2017). Cancer Discovery, 7(5). doi:10.1158/2159-8290.cd-rw2017-057	http://cancerdiscovery.aacrjournals.org/content/7/5/453.2.full-text.pdf		
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CTLA4	Merchant, M. S., Wright, M., Baird, K., Wexler, L. H., Rodriguez-Galindo, C., Bernstein, D., … Mackall, C. L. (2016). Phase 1 Clinical Trial of Ipilimumab In Pediatric Patients With Advanced Solid Tumors. Clinical Cancer Research : An Official Journal of the American Association for Cancer Research, 22(6), 1364–1370. http://doi.org/10.1158/1078-0432.CCR-15-0491	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5027962/		
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IDO1	Folgiero, V., Goffredo, B. M., Filippini, P., Masetti, R., Bonanno, G., Caruso, R., . . . Rutella, S. (2013). Indoleamine 2,3-dioxygenase 1 (IDO1) activity in leukemia blasts correlates with poor outcome in childhood acute myeloid leukemia. Oncotarget, 5(8). doi:10.18632/oncotarget.1504	https://preview.ncbi.nlm.nih.gov/pmc/articles/PMC4039144/		
IFN-gamma	Reid GSD, Shan X, Coughlin CM, et al. Interferon-gamma dependent infiltration of human T cells into neuroblastoma tumors in vivo. Clinical cancer research : an official journal of the American Association for Cancer Research. 2009;15(21):6602-6608. doi:10.1158/1078-0432.CCR-09-0829.	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2783677/		
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LAG3	Birley, K., Chester, K., & Anderson, J. (2018). Antibody based therapy for childhood solid cancers. Current Opinion in Chemical Engineering, 19, 153-162. doi:10.1016/j.coche.2018.01.005	https://www.sciencedirect.com/science/article/pii/S2211339817300503		
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PD-1/PD-L1	Chen, L., & Han, X. (2015). Anti–PD-1/PD-L1 therapy of human cancer: past, present, and future. The Journal of Clinical Investigation, 125(9), 3384–3391. http://doi.org/10.1172/JCI80011	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4588282/		
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AURKB (Aurora kinase B)	Bavetsias, V., & Linardopoulos, S. (2015). Aurora Kinase Inhibitors: Current Status and Outlook. Frontiers in Oncology, 5, 278. http://doi.org/10.3389/fonc.2015.00278	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4685048/		
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ATR	Weber, A. M., & Ryan, A. J. (2015). ATM and ATR as therapeutic targets in cancer. Pharmacology & Therapeutics, 149, 124-138. doi:10.1016/j.pharmthera.2014.12.001	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5066844/; [Erratum of the research article]https://www.sciencedirect.com/		
BCL2 family members (Bcl-2, Bcl-XL, Mcl-1, A1/BFL, BAK, BAX)	Chaber, R., Fiszer-Maliszewska, L., Noworolska-Sauren, D., Kwasnicka, J., Wrobel, G., & Chybicka, A. (2013). The BCL-2 Protein in Precursor B Acute Lymphoblastic Leukemia in Children. Journal of Pediatric Hematology/Oncology, 35(3), 180-187. doi:10.1097/mph.0b013e318286d29b	https://www.ncbi.nlm.nih.gov/pubmed/23511489		
BET bromodomain family	Wadhwa E, Nicolaides T (May 21, 2016) Bromodomain Inhibitor Review: Bromodomain and Extra-terminal Family Protein Inhibitors as a Potential New Therapy in Central Nervous System Tumors. Cureus 8(5): e620. doi:10.7759/cureus.620	https://www.ncbi.nlm.nih.gov/pubmed/27382528	Hensel, T., Giorgi, C., Schmidt, O., Calzada-Wack, J., Neff, F., Buch, T., . . . Richter, G. H. (2015). Targeting the EWS-ETS transcriptional program by BET bromodomain inhibition in Ewing sarcoma. Oncotarget, 7(2). doi:10.18632/oncotarget.6385	https://mediatum.ub.tum.de/doc/1398856/1398856.pdf
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CDK7	Kwiatkowski, N., Zhang, T., Rahl, P. B., Abraham, B. J., Reddy, J., Ficarro, S. B., … Gray, N. S. (2014). Targeting transcription regulation in cancer with a covalent CDK7 inhibitor. Nature, 511(7511), 616–620. http://doi.org/10.1038/nature13393	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4244910/		
CDK9	Moreno, N., Holsten, T., Mertins, J., Zhogbi, A., Johann, P., Kool, M., … Kerl, K. (2017). Combined BRD4 and CDK9 inhibition as a new therapeutic approach in malignant rhabdoid tumors. Oncotarget, 8(49), 84986–84995. http://doi.org/10.18632/oncotarget.18583	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5689588/		
CK2 (casein kinase 2)	Chua, M. M. J., Ortega, C. E., Sheikh, A., Lee, M., Abdul-Rassoul, H., Hartshorn, K. L., & Dominguez, I. (2017). CK2 in Cancer: Cellular and Biochemical Mechanisms and Potential Therapeutic Target. Pharmaceuticals, 10(1), 18. http://doi.org/10.3390/ph10010018	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5374422/	Buontempo, F., Mccubrey, J. A., Orsini, E., Ruzzene, M., Cappellini, A., Lonetti, A., . . . Martelli, A. M. (2017). Therapeutic targeting of CK2 in acute and chronic leukemias. Leukemia, 32(1), 1-10. doi:10.1038/leu.2017.301	https://www.nature.com/articles/leu2017301
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DNMT (DNA methyl transferase)	Diede, S. J., Guenthoer, J., Geng, L. N., Mahoney, S. E., Marotta, M., Olson, J. M., . . . Tapscott, S. J. (2009). DNA methylation of developmental genes in pediatric medulloblastomas identified by denaturation analysis of methylation differences. Proceedings of the National Academy of Sciences, 107(1), 234-239. doi:10.1073/pnas.0907606106	http://www.pnas.org/content/pnas/early/2009/11/30/0907606106.full.pdf		
FAK	Waters, A. M., Stafman, L. L., Garner, E. F., Mruthyunjayappa, S., Stewart, J. E., Mroczek-Musulman, E., & Beierle, E. A. (2016). Targeting Focal Adhesion Kinase Suppresses the Malignant Phenotype in Rhabdomyosarcoma Cells. Translational Oncology, 9(4), 263–273. http://doi.org/10.1016/j.tranon.2016.06.001	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4925808/		
FOLR1 (folate receptor 1)	Orentas, R. J., Lee, D. W., & Mackall, C. (2012). Immunotherapy Targets in Pediatric Cancer. Frontiers in Oncology, 2, 3. http://doi.org/10.3389/fonc.2012.00003	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3355840/		
GSK-3	Hu, Y., Gu, X., Li, R., Luo, Q., & Xu, Y. (2010). Glycogen synthase kinase-3β inhibition induces nuclear factor-κB-mediated apoptosis in pediatric acute lymphocyte leukemia cells. Journal of Experimental & Clinical Cancer Research : CR, 29(1), 154. http://doi.org/10.1186/1756-9966-29-154	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3002327/	Mills, C. N., Nowsheen, S., Bonner, J. A., & Yang, E. S. (2011). Emerging Roles of Glycogen Synthase Kinase 3 in the Treatment of Brain Tumors. Frontiers in Molecular Neuroscience, 4, 47. http://doi.org/10.3389/fnmol.2011.00047	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3223722/
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Hippo pathway (YAP, TAZ, TEADs)	Ahmed, A. A., Mohamed, A. D., Gener, M., Li, W., & Taboada, E. (2017). YAP and the Hippo pathway in pediatric cancer. Molecular & Cellular Oncology, 4(3), e1295127. http://doi.org/10.1080/23723556.2017.1295127	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5462521/		
Hsp90	Li, W., Tsen, F., Sahu, D., Bhatia, A., Chen, M., Multhoff, G., & Woodley, D. T. (2013). Extracellular Hsp90 (eHsp90) as the Actual Target in Clinical Trials: Intentionally or Unintentionally. International Review of Cell and Molecular Biology, 303, 203–235. http://doi.org/10.1016/B978-0-12-407697-6.00005-2	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023563/		
IAPs (inhibitor-of-apoptosis)	Tyner, J. W., Jemal, A. M., Thayer, M., Druker, B. J., & Chang, B. H. (2012). Targeting survivin and p53 in pediatric acute lymphoblastic leukemia. Leukemia, 26(4), 623–632. http://doi.org/10.1038/leu.2011.249	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3364442/		
LSD1	Theisen, E. R., Pishas, K. I., Saund, R. S., & Lessnick, S. L. (2016). Therapeutic opportunities in Ewing sarcoma: EWS-FLI inhibition via LSD1 targeting. Oncotarget, 7(14), 17616–17630. http://doi.org/10.18632/oncotarget.7124	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4951237/		
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ESR1	Lovén, J., Zinin, N., Wahlström, T., Müller, I., Brodin, P., Fredlund, E., … Henriksson, M. (2010). MYCN-regulated microRNAs repress estrogen receptor-α (ESR1) expression and neuronal differentiation in human neuroblastoma. Proceedings of the National Academy of Sciences of the United States of America, 107(4), 1553–1558. http://doi.org/10.1073/pnas.0913517107	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2824410/		
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GnRHR	Cheng, C. K., Chow, B. K., & Leung, P. C. (2003). An Activator Protein 1-Like Motif Mediates 17β-Estradiol Repression of Gonadotropin-Releasing Hormone Receptor Promoter via an Estrogen Receptor α-Dependent Mechanism in Ovarian and Breast Cancer Cells. Molecular Endocrinology, 17(12), 2613-2629. doi:10.1210/me.2003-0217	https://academic.oup.com/mend/article-pdf/17/12/2613/10716982/mend2613.pdf		
VEGF	Glade Bender, J., Yamashiro, D. J., & Fox, E. (2011). Clinical Development of VEGF Signaling Pathway Inhibitors in Childhood Solid Tumors. The Oncologist, 16(11), 1614–1625. http://doi.org/10.1634/theoncologist.2011-0148	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3233297/		
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