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GLI1 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10350

Product Information

Application	WB
Primary Accession	P08151
Other Accession	NM_005269, NP_005260
Reactivity	Human, Mouse, Rat, Pig, Dog, Bovine
Predicted	Human, Mouse, Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	117904

Additional Information

Gene ID	2735
Alias Symbol	GLI
Other Names	Zinc finger protein GLI1, Glioma-associated oncogene, Oncogene GLI, GLI1, GLI
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 100 ul of distilled water. Final anti-GLI1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	GLI1 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GLI1 {ECO:0000303|PubMed:19706761, ECO:0000312|HGNC:HGNC:4317}
Function	Transcription activator that acts as a key effector of the smoothened signaling pathway, and which plays a role in craniofacial development and digital development, as well as development of the central nervous system and gastrointestinal tract (PubMed:10806483, PubMed:11238441, PubMed:19706761, PubMed:19878745, PubMed:24076122, PubMed:24217340, PubMed:24311597, PubMed:28973407). Binds to the DNA consensus sequence 5'-GACCACCCA-3' (PubMed:2105456, PubMed:24217340, PubMed:2832761, PubMed:8378770). Activated in response to smoothened signaling: in presence of hedgehog (DHH, IHH or SHH) and subsequent activation of smoothened, GLI1 translocates to the nucleus and promotes

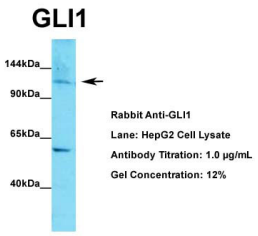
	expression of target genes (PubMed:2105456). In contrast to GLI2 and GLI3, does not contain a repressor domain and only acts as a transcription activator (PubMed:10075717).
Cellular Location	Cytoplasm. Nucleus. Cell projection, cilium {ECO:0000250|UniProtKB:P47806}. Note=Sequestered in the cytoplasm by SUFU in absence of smoothened signaling (PubMed:10806483, PubMed:10559945). Accumulates in primary cilia following smoothened activation (By similarity). It then translocates to the nucleus, where is activates transcription of target genes (PubMed:10806483, PubMed:24311597, PubMed:35831023). Activation and translocation to the nucleus is promoted by interaction with STK36 (PubMed:10806483). Phosphorylation by ULK3 may promote nuclear localization (PubMed:19878745). Translocation to the nucleus is promoted by interaction with ZIC1 (PubMed:11238441) {ECO:0000250|UniProtKB:P47806, ECO:0000269|PubMed:10559945, ECO:0000269|PubMed:10806483, ECO:0000269|PubMed:11238441, ECO:0000269|PubMed:19878745, ECO:0000269|PubMed:24311597, ECO:0000269|PubMed:35831023}
Tissue Location	Detected in testis (at protein level) (PubMed:2105456). Testis, myometrium and fallopian tube. Also expressed in the brain with highest expression in the cerebellum, optic nerve and olfactory tract (PubMed:19878745). Isoform 1 is detected in brain, spleen, pancreas, liver, kidney and placenta; isoform 2 is not detectable in these tissues (PubMed:19706761)

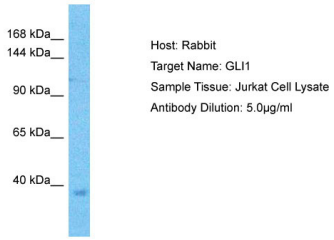
References

Rahnama,F., et al., (2006) Biochem. J. 394 (PT 1), 19-26Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.Publications:Yoshimura, K., Kawate, T. & Takeda, S. Signaling through the primary cilium affects glial cell survival under a stressed environment. Glia 59, 333-44 (2011). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse21125655Maitah, M. Y., Ali, S., Ahmad, A., Gadgeel, S. & Sarkar, F. H. Up-regulation of sonic hedgehog contributes to TGF-β1-induced epithelial to mesenchymal transition in NSCLC cells. PLoS One 6, e16068 (2011). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse21249152Schiapparelli, P. et al. Inhibition of the sonic hedgehog pathway by cyplopamine reduces the CD133+/CD15+ cell compartment and the in vitro tumorigenic capability of neuroblastoma cells. Cancer Lett. 310, 222-31 (2011). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse21803487Ferruzzi, P. et al. In vitro and in vivo characterization of a novel Hedgehog signaling antagonist in human glioblastoma cell lines. Int. J. Cancer 131, E33-44 (2012). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse22072503Ortega, M. C. et al. Megalin mediates the influence of sonic hedgehog on oligodendrocyte precursor cell migration and proliferation during development. Glia 60, 851-66 (2012). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse22354480Pandolfi, S. et al. WIP1 phosphatase modulates the Hedgehog signaling by enhancing GLI1 function. Oncogene 32, 4737-47 (2013). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse23146903Bosco-Clément, G. et al. Targeting Gli transcription activation by small molecule suppresses tumor growth. Oncogene 33, 2087-97 (2014). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse23686308Iwata, J. et al. Modulation of lipid metabolic defects rescues cleft palate in Tgfbr2 mutant mice. Hum. Mol. Genet. 23, 182-93 (2014). WB, IP, Bovine, Human, Dog, Pig, Horse, Rabbit, Rat, Guinea pig, Mouse23975680

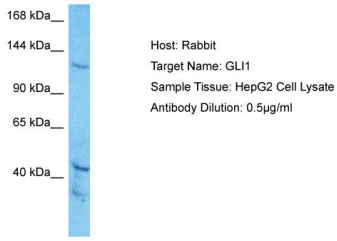
Images

WB Suggested Anti-GLI1 Antibody Titration: 1.ug/ml
Positive Control: HepG2 cell lysate





Host:Rabbit
Target Name:GLI1
Sample Tissue: Jurkat Whole Cell lysates
Antibody Dilution:5.ug/ml



Host:Rabbit
Target Name:GLI1
Sample Tissue: HepG2 Whole Cell lysates
Antibody Dilution:.5ug/ml

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.