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Gli1 Antibody

Rabbit mAb
Catalog # AP90770

Product Information

Application	WB
Primary Accession	P08151
Reactivity	Human
Clonality	Monoclonal
Other Names	Zinc finger protein GLI1; Glioma-associated oncogene; Oncogene GLI; Zfp5; GLI family zinc finger 1;GLI;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	117904

Additional Information

Dilution	WB 1:500~1:1000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Gli1
Description	GLI belongs to the Kruppel family of zinc finger proteins that includes three mammalian GLI proteins: GLI1, GLI2, and GLI3. Acts as a transcriptional activator. May regulate the transcription of specific genes during normal development. May play a role in craniofacial development and digital development, as well as development of the central nervous system and gastrointestinal tract. Mediates SHH signaling and thus cell proliferation and differentiation.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

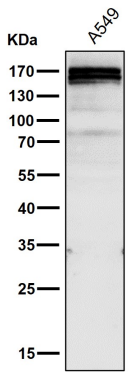
Cellular Location

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)

Images



Western blot analysis of Gli1 expression in A549 cell lysate.

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