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Gli3 Antibody

Rabbit mAb
Catalog # AP91899

Product Information

Application	WB, IF, ICC
Primary Accession	P10071
Reactivity	Human
Clonality	Monoclonal
Other Names	ACLS; GCPS; GLI3; GLI3FL; PAPA; PAPA1; PAPB; PHS; PPDIV;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	169863

Additional Information

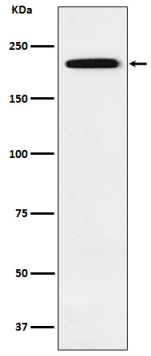
Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Gli3
Description	Has a dual function as a transcriptional activator and a repressor of the sonic hedgehog (Shh) pathway, and plays a role in limb development. The full-length GLI3 form (GLI3FL) after phosphorylation and nuclear translocation, acts as an activator (GLI3A) while GLI3R, its C-terminally truncated form, acts as a repressor.
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	GLI3 {ECO:0000303|PubMed:2118997, ECO:0000312|HGNC:HGNC:4319}
Function	Transcription factor that acts as a key effector of the smoothened signaling pathway, and which plays a role in the development and patterning of various body structures, including the brain and limbs (PubMed:10075717, PubMed:10375510, PubMed:10693759, PubMed:11238441, PubMed:17764085, PubMed:20154143, PubMed:27146893). Specifically binds to the minimal GLI-consensus sequence 5'-GACCACCCA- 3' to activate or repress the expression of target genes (PubMed:10075717). Functions both as a transcriptional activator and repressor: the full-length GLI3 form (Transcription activator GLI3) acts as a transcription activator following smoothened activation, while the Transcription repressor GLI3R, which is generated in absence of smoothened, acts as a transcription repressor (PubMed:10375510). The repressor form (GLI3R) constitutes the major form of GLI3 (PubMed:10375510).

Cellular Location	Nucleus. Cytoplasm. Cell projection, cilium. Note=Full-length GLI3 is sequestered in the cytoplasm by SUFU in absence of smoothened signaling [Transcription activator GLI3]: Nucleus. Cytoplasm Cell projection, cilium Note=Sequestered in the cytoplasm by SUFU in absence of smoothened signaling (PubMed:38968120). Accumulates in primary cilia following smoothened activation: cilium localization requires the presence of KIF7 (PubMed:19592253, PubMed:20154143). It then translocates to the nucleus, where is activates transcription of target genes (PubMed:38968120). Translocation to the nucleus is promoted by interaction with ZIC1 (PubMed:11238441). TMEM216 reduces its nuclear localization (By similarity). {ECO:0000250|UniProtKB:Q61602, ECO:0000269|PubMed:11238441, ECO:0000269|PubMed:19592253, ECO:0000269|PubMed:20154143, ECO:0000269|PubMed:38968120}
Tissue Location	Is expressed in a wide variety of normal adult tissues, including lung, colon, spleen, placenta, testis, and myometrium.

Images



Western blot analysis of Gli3 expression in 293 cell lysate.

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