10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GLI / GLI1 Antibody (aa755-1106, clone 4E2)

Mouse Anti Human Monoclonal Antibody
Catalog # ALS18231

Product Information

Application	WB, IHC-P
Primary Accession	P08151
Predicted	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	4E2
Calculated MW	117904
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	2735
Alias Symbol	GLI1
Other Names	GLI1, Gli-1, GLI family zinc finger 1, Glioma-associated oncogene, Glioma-associated oncogene 1, Oncogene GLI, GLI, Zinc finger protein GLI1
Target/Specificity	Human GLI / GLI1
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-GLI / GLI1 Antibody (aa755-1106, clone 4E2) 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)

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