Anti-GLI-3 antibody

Description	Rabbit polyclonal to GLI-3.

Model	STJ93279
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, IHC
Immunogen	Synthesized peptide derived from human GLI-3
Immunogen Region	30-110 aa, N-terminal
Gene ID	2737
Gene Symbol	GLI3
Dilution range	IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000
Specificity	GLI-3 Polyclonal Antibody detects endogenous levels of GLI-3 protein.
Tissue Specificity	Is expressed in a wide variety of normal adult tissues, including lung, colon, spleen, placenta, testis, and myometrium.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Transcriptional activator GLI3 GLI3 form of 190 kDa GLI3-190 GLI3 full-length protein GLI3FL Transcriptional repressor GLI3R GLI3 C-terminally truncated form GLI3 form of 83 kDa GLI3-83
Molecular Weight	13.553 kDa

Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4319OMIM:146510
Alternative Names	Transcriptional activator GLI3 GLI3 form of 190 kDa GLI3-190 GLI3 full-length protein GLI3FL Transcriptional repressor GLI3R GLI3 C-terminally truncated form GLI3 form of 83 kDa GLI3-83
Function	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. A proper balance between the GLI3 activator and the repressor GLI3R, rather than the repressor gradient itself or the activator/repressor ratio gradient, specifies limb digit number and identity. In concert with TRPS1, plays a role in regulating the size of the zone of distal chondrocytes, in restricting the zone of PTHLH expression in distal cells and in activating chondrocyte proliferation. Binds to the minimal GLI-consensus sequence 5'-GGGTGGTC-3'.
Cellular Localization	Nucleus. Cytoplasm. Cell projection, cilium. GLI3FL is localized predominantly in the cytoplasm while GLI3R resides mainly in the nucleus. Ciliary accumulation requires the presence of KIF7 and SMO. Translocation to the nucleus is promoted by interaction with ZIC1.
Post-translational Modifications	Phosphorylated on multiple sites by protein kinase A (PKA) and phosphorylation by PKA primes further phosphorylation by CK1 and GSK3. Phosphorylated by DYRK2 (in vitro). Phosphorylation is essential for its proteolytic processing.; Transcriptional repressor GLI3R, a C-terminally truncated form, is generated from the full-length GLI3 protein (GLI3FL/GLI3-190) through proteolytic processing. This process requires PKA-primed phosphorylation of GLI3, ubiquitination of GLI3 and the presence of BTRC. GLI3FL is complexed with SUFU in the cytoplasm and is maintained in a neutral state. Without the Hh signal, the SUFU-GLI3 complex is recruited to cilia, leading to the efficient processing of GLI3FL into GLI3R. GLI3R formation leads to its dissociation from SUFU, allowing it to translocate into the nucleus, and repress Hh target genes. When Hh signaling is initiated, SUFU dissociates from GLI3FL and this has two consequences. First, GLI3R production is halted. Second, free GLI3FL translocates to the nucleus, where it is phosphorylated, destabilized, and converted to a transcriptional activator (GLI3A). Phosphorylated in vitro by ULK3.