Rabbit GLI-3 Polyclonal Antibody | anti-GLI-3 antibody

GLI-3 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327676	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

GLI-3; Polyclonal Antibody; GLI-3 Antibody; ACLS; DNA binding protein; GCPS; Gli 3; GLI family zinc finger 3; GLI Kruppel family member GLI 3; GLI Kruppel family member GLI3 (Greig cephalopolysyndactyly syndrome); GLI Kruppel family member GLI3; GLI3; GLI3 C-terminally truncated form; GLI3 form of 190 kDa; GLI3 form of 83 kDa; GLI3 full length protein; GLI3-190; GLI3-83; GLI3_HUMAN; GLI3FL; Glioma associated oncogene family zinc finger 3; Oncogene GLI3; PAP A; PAPA 1; PAPA; PAPA1; PAPB; PHS; PPD IV; PPDIV; Transcriptional activator GLI3; Transcriptional repressor GLI3R; Zinc finger protein GLI 3; Zinc finger protein GLI3; anti-GLI-3 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	GLI-3 antibody detects endogenous levels of total GLI-3
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1580
Applicable Applications for anti-GLI-3 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human GLI-3
Subcellular Location	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.
Tissue Specificity	Is expressed in a wide variety of normal adult tissues, including lung, colon, spleen, placenta, testis, and myometrium.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohiostchemistry)
AAA327676 at 1/100 staining Human lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis GLI-3 using K562 whole cell lysates

ADDITIONAL INFORMATION

Related Product Information for anti-GLI-3 antibody	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'. Subunit Structure: The full-length GLI3 form (GLI3FL) interacts with SUFU and this interaction regulates the formation of either repressor or activator forms of GLI3. Its association with SUFU is regulated by Hh signaling and dissociation of the SUFU-GLI3 interaction requires the presence of the ciliary motor KIF3A (By similarity). Interacts with KIF7. The activator form of GLI3 (GLI3A) but not the repressor form (GLI3R) can interact with TRPS1. The phosphorylated form interacts with BTRC. Interacts with ZIC1. Interacts with ZIC3 (via C2H2-type domains 3, 4 and 5); the interaction enhances its transcriptional activity. 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. Similarity: Belongs to the GLI C2H2-type zinc-finger protein family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	119393899
NCBI GeneID	2737
NCBI Accession #	NP_000159.3
NCBI GenBank Nucleotide #	NM_000168.5
UniProt Accession #	P10071; O75219; Q17RW4; Q75MT0; Q75MU9; Q9UDT5; Q9UJ39; A4D1W1
Molecular Weight	Observed: 170 kDa Predicted: 170 kDa
NCBI Official Full Name	transcriptional activator GLI3
NCBI Official Synonym Full Names	GLI family zinc finger 3
NCBI Official Symbol	GLI3
NCBI Official Synonym Symbols	PHS; ACLS; GCPS; PAPA; PAPB; PAP-A; PAPA1; PPDIV; GLI3FL; GLI3-190
NCBI Protein Information	transcriptional activator GLI3

UniProt Protein Name	Transcriptional activator GLI3
UniProt Gene Name	**GLI3**
UniProt Synonym Gene Names	GLI3-190; GLI3FL; GLI3-83

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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