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Anti-Gli3 Antibody

Catalog # ABO11075

Product Information

Application	WB
Primary Accession	P10071
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Transcriptional activator GLI3(GLI3) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2737
Other 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, GLI3
Calculated MW	169863
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat, Mouse
Subcellular 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.
Tissue Specificity	Is expressed in a wide variety of normal adult tissues, including lung, colon, spleen, placenta, testis, and myometrium.
Source	Eukaryota
Protein Name	Transcriptional activator GLI3
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Gli3(40-57aa SNEDESPGQTYHRERRNA), different from the related rat sequence by two amino acids, and from the related mouse sequence by one amino acid.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the GLI C2H2-type zinc-finger protein family.

Protein Information

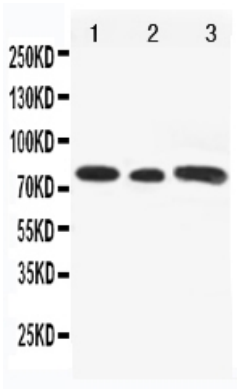
Name	GLI3 {ECO:0000303|PubMed:2118997, ECO:0000312|HGNC:HGNC:4319}
Function	Transcription factor that acts as a key effector of the smoothened signaling pathway, and which plays a role in the development and patterning of various body structures, including the brain and limbs (PubMed:10075717, PubMed:10375510, 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.

Background

GLI3(Gli-kruppel family member 3), also called ONCOGENE GLI3, encodes a member of the zinc finger gene family related to Kruppel, a gene that is known to regulate development in Drosophila. The GLI3 gene is expressed as an 8.5-kb mRNA in tissues such as testis, myometrium, placenta, and lung, and the protein product(relative molecular mass, 190,000) shows sequence-specific DNA binding. The GLI3 gene is mapped on 7p14.1. GLI3 is homologous to the Drosophila cubitus interruptus(ci) gene product(Ci), which regulates the Patched(pct), gooseberry(gsb), and decapentaplegic(dpp) genes. PKA-dependent processing of vertebrate GLI3 in developing limb generates a potent repressor in a manner antagonized by apparent long-range signaling from posteriorly localized Sonic hedgehog protein. The high relative abundance and potency of GLI3 repressor suggested specialization of GLI3 and its products for negative hedgehog pathway regulation.Coimmunoprecipitation and immunoblot studies showed that GLI3 protein is polyubiquitinated and that its processing depends on proteasome activity. The findings suggested that BTRC is required for

GLI3 processing.

Images



Anti-Gli3 antibody, ABO11075, Western blottingLane 1: Rat Testis Tissue Lysate Lane 2: A549 Cell Lysate Lane 3: SW620 Cell Lysate

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