

Anti-GLI3 (RABBIT) Antibody
GLI3 Antibody
Catalog # ASR5282

Specification

Anti-GLI3 (RABBIT) Antibody - Product Information

| | |
|------------------|--|
| Host | Rabbit |
| Conjugate | Unconjugated |
| Target Species | Human |
| Reactivity | Human |
| Clonality | Polyclonal |
| Application | WB, IHC, E, I, LCI |
| Application Note | This antibody has been tested for use in ELISA, immunohistochemistry, immunofluorescence, and western blot. Specific conditions for reactivity should be optimized by the end user. Detection of Gli-3 by western blot may be enhanced if nuclear extracts are used instead of whole cell lysates as the expression/abundance of Gli-3 is likely to be low. Furthermore, Gli3 expression is likely to be developmentally regulated and induced, making it difficult to detect in whole tissue homogenates. |
| Physical State | Liquid (sterile filtered) |
| Buffer | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| Immunogen | This affinity purified antibody was produced from monospecific rabbit serum by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 30-60 of human Gli-3 protein. |
| Preservative | 0.01% (w/v) Sodium Azide |

Anti-GLI3 (RABBIT) Antibody - Additional Information

Gene ID 2737

Other Names
2737

Purity

This affinity-purified antibody is directed against human Gli-3 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with Gli-3 from human, chimpanzee, squirrel monkey, *Xenopus laevis*, chicken, dog and quail based on 100% sequence homology with the immunogen. Reactivity is also expected against homologues from mouse (94%) and rat (88%) based on partial homology. Reactivity with Gli-3 from other sources is not known.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-GLI3 (RABBIT) Antibody - Protein Information

Name GLI3

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 Location

Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q61602}. Cell projection, cilium. Note=GLI3FL is localized predominantly in the cytoplasm while GLI3R resides mainly in the nucleus (By similarity). Ciliary accumulation requires the presence of KIF7 and SMO (PubMed:19592253). 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}

Tissue Location

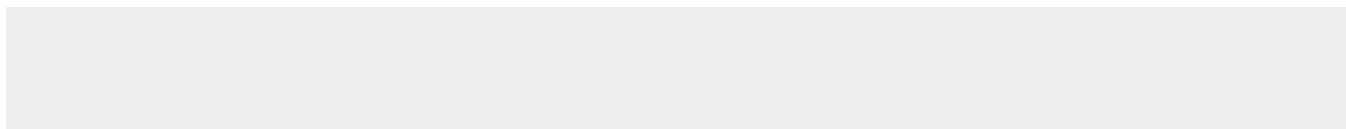
Is expressed in a wide variety of normal adult tissues, including lung, colon, spleen, placenta, testis, and myometrium.

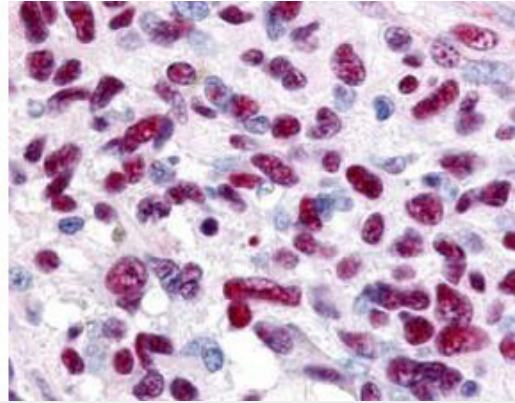
Anti-GLI3 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-GLI3 (RABBIT) Antibody - Images





Immunohistochemistry of Rabbit anti-Gli-3 antibody. This image tissue: human glioblastoma. Specific staining was also noted in tissue from adrenal, brain, glioblastoma, colon, heart, kidney, lung, liver, skeletal muscle, ovary, pancreas, placenta, skin, spleen, stomach, testes, thymus, thyroid, tonsil and uterus. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Gli-3 antibody at 0.625 $\mu\text{g/ml}$ for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Gli-3 is nuclear and smooth muscle. Staining: Gli-3 as precipitated red signal with hematoxylin purple nuclear counterstain.

Anti-GLI3 (RABBIT) Antibody - Background

Gli-3 (also known as Zinc Finger Protein Gli-3 or GLI-Kruppel family member GLI-3) belongs to the GLI C2H2-type zinc-finger protein family and contains 5 C2H2-type zinc fingers. Gli-3 is very important for normal limb and brain development and is implicated in the transduction of Shh signal. Gli-3 is a nuclear protein expressed in a wide variety of normal adult tissues, including lung, colon, spleen, placenta, testis, and myometrium. Defects in Gli-3 are the cause of Greig cephalo-poly-syndactyly syndrome (GCPS); an autosomal dominant disorder-affecting limb and cranio-facial development. Two isoforms of human Gli-3 have been reported. One is the full-length protein at $\sim 170\text{-}190\text{kDa}$ and the other is a truncated isoform at $\sim 80\text{kDa}$.