

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

Mouse Anti Human Monoclonal Antibody

Catalog # ALS18231

## Product Information

|                       |                        |
|-----------------------|------------------------|
| Application           | WB, IHC-P              |
| Primary Accession     | <a href="#">P08151</a> |
| 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: <a href="#">10806483</a> , PubMed: <a href="#">11238441</a> , PubMed: <a href="#">19706761</a> , PubMed: <a href="#">19878745</a> , PubMed: <a href="#">24076122</a> , PubMed: <a href="#">24217340</a> , PubMed: <a href="#">24311597</a> , PubMed: <a href="#">28973407</a> ). Binds to the DNA consensus sequence 5'-GACCA <sup>+</sup> CCA-3' (PubMed: <a href="#">2105456</a> , PubMed: <a href="#">24217340</a> , PubMed: <a href="#">2832761</a> , PubMed: <a href="#">8378770</a> ). 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: <a href="#">2105456</a> ). 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 it 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'.