

Product Specification Sheet

Product: anti-Gli1₈₀₃₋₈₁₈ (Mouse/Human) (Rabbit)

Code: 100-401-223

Lot #: 7853

Size: 100 µl

Physical State: Liquid (sterile filtered)

Protein Concentration: 85 mg/ml (by Refractometry)

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Stabilizer: None

Preservative: 0.1% (w/v) Sodium Azide

Storage Conditions: Store vial at -20° C prior to opening. For extended storage aliquot contents and freeze at -20° C or below. 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. Expiration date is one (1) year from date of opening.

Background Information: This antiserum was produced against a peptide corresponding to the carboxy-terminal region of the mouse Gli1 protein. This region is not conserved among other *gli* family members, namely Gli2 and Gli3. Gli was termed by Kinzler et al. (1987) as 'glioma-associated oncogene' amplified in malignant gliomas. Analysis of the cloned gene demonstrates that the gene contains 5 repeats of zinc-finger sequences, which places gli in the family of Kruppel (Kr) zinc finger proteins. Northern analysis reveals that GLI is expressed in embryonal carcinoma cells but not in most adult tissue. GLI has been localized to 12q13-q14.3 by Southern blot analysis. On mouse the gene is located on chromosome 10. In mice, 3 zinc finger transcription factors, Gli1, Gli2 and Gli3, have been implicated in the transduction of Sonic hedgehog (Shh) signal. In papillary epithelium, *shh*, *gli1* and *ptc* all follow similar expression patterns. Gli1 expression is central and probably sufficient for tumor development in humans.

Recommended Dilutions : A working dilution of 1:5,000 to 1:10,000 is suggested for immunoblotting. Optimal titers for other applications should be determined by the researcher. This antiserum against Mouse and Human Gli-1 has been tested for use in immunoprecipitation and immunoblotting. The antibody recognizes a band of approximately 150,000 kDa corresponding to Gli1 in protein extracts from mouse and human tissues. Reactivity in other immunoassays is unknown.

Purity and Specificity: This whole rabbit antiserum was prepared by delipidation and defibrination followed by the addition of buffer salts and preservative. This antibody is directed against Gli1 from mouse. In general, this antibody also detects human Gli1. Cross-reactivity with other species is likely but has not been determined. No reaction occurs with human or mouse Gli2 or Gli3.

Immunogen: The whole rabbit serum was prepared by repeated immunizations with a synthetic peptide corresponding to amino acids 803-818 of the carboxy-terminal region of mouse Gli1. The peptide was synthesized as a multiple antigen peptide (MAP).

Background Reference(s):

Wetmore, C., Eberhardt, D. and Curran, T. (2000) The normal *patched* allele is expressed in medulloblastomas from mice with heterozygous germline mutation of *patched*. *Cancer Res.* **60**(8): 2239-2246.

[Hall](#), J.M., Hooper, J.E., Finger, T.E. (1999) Expression of sonic hedgehog, patched, and gli1 in developing taste papillae of the mouse. *J. Comp. Neurol.* **406**(2):143-155.

[Park](#), H. L. et. al. (2000) Mouse *Gli1* mutants are viable but have defects in SHH signaling in combination with a *Gli2* mutation. *Development* **127**(8): 1593-1605.

Kinzler, K.W. et. al. (1987) Identification of an amplified, highly expressed gene in a human glioma. *Science* **236**:70-73.

Kinzler, K.W. et. al. (1988) The GLI gene is a member of the Kruppel family of zinc finger proteins. *Nature* **332**:371-4.

Ghali, L. et. al. (1999) Gli1 protein is expressed in basal cell carcinomas, outer root sheath keratinocytes and a subpopulation of mesenchymal cells in normal human skin. *J. Invest. Dermatol.* **113**:4, 595-9.

Dahmane, N. et. al. (2000) Activation of the transcription factor Gli1 and the Sonic Hedgehog signaling pathway in skin tumors. *Nature* **389**:6653, 876-881.

Relevant Links:

Expression of Gli1 in mouse tooth at <http://bite-it.helsinki.fi/GLI1.htm>.

Genebank Accession Number [NM_005269](#)

Note: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.