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Datasheet for 600-401-845

GLI2 Antibody

Overview

Description:	Anti-GLI2 (RABBIT) Antibody - 600-401-845
Item No.:	600-401-845
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human, Rat
Host Species:	Rabbit

Product Details

Background:	Gli-2 (also known as Zinc Finger Protein Gli-2, GLI-Kruppel family member GLI-2 or Tax helper protein) belongs to the C2H2-type zinc finger protein subclass of the Gli family. Members of this subclass are characterized as transcription factors that bind DNA through zinc finger motifs. These motifs contain conserved H-C links. Gli family zinc finger proteins are mediators of Sonic hedgehog (Shh) signaling and they are implicated as potent oncogenes in the embryonal carcinoma cell. The protein encoded by this gene localizes to the cytoplasm and activates patched Drosophila.
Synonyms:	rabbit anti-GLI-2 antibody, GLI2, zinc finger protein GLI2, GLI family zinc finger protein 2, Tax helper protein antibody, THP antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	GLI2
Reactivity:	Human, Rat
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 30 -65 of human Gli-2 (isoform a).

Purity/Specificity:	This affinity-purified antibody is directed against human Gli-2 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with Gli-2 from human and chimpanzee based on the immunizing sequence.
Relevant Links:	• NCBI - NP_005261.2 • UniProtKB - P10070 • NCBI - NP_084655 • GeneID - 2736

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	This antibody has been tested for use in ELISA, immunohistochemistry and western blot. Specific conditions for reactivity should be optimized by the end user. See figure legend for expectations by western blot. Multiple splice variants have been reported for this protein a, b, g and d (133.3, 131.6, 88.1 and 86.4 kDa respectively). Detection of Gli-2 by western blot may be enhanced if nuclear extracts are used instead of whole cell lysates as the expression/abundance of Gli-2 is likely to be low. Furthermore, Gli-2 expression is likely to be developmentally regulated and induced, making it difficult to detect in whole tissue homogenates.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:2,000 - 1:12,000
IHC:	1:500 - 1:2,000
WB:	1:500 - 1:2,000

Formulation

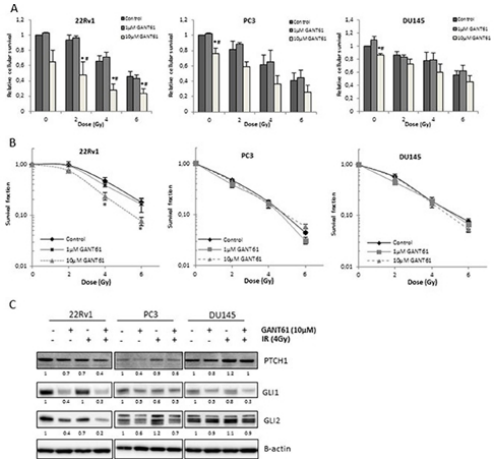
Physical State:	Liquid (sterile filtered)
Concentration:	1.00 by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

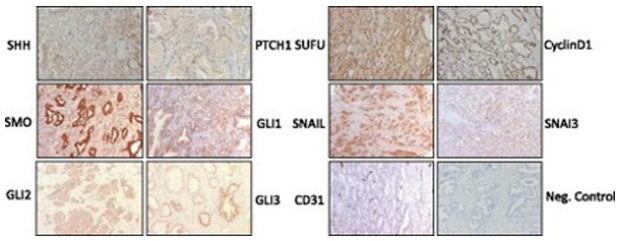
Shipping Condition:	Dry Ice

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.
Expiration:	Expiration date is one (1) year from date of receipt.

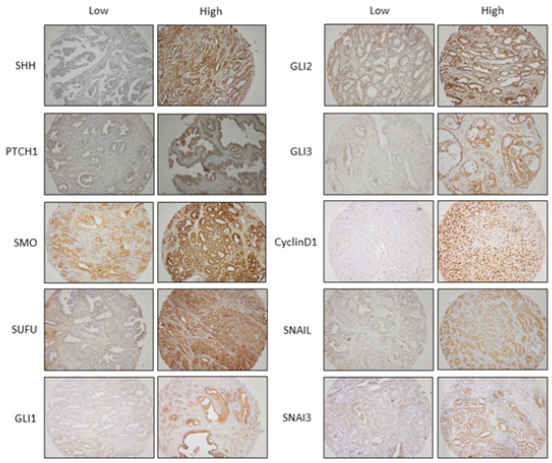
Images



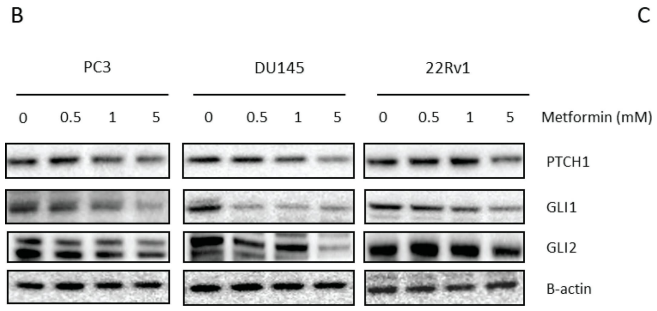
Western Blot
(A) Relative cellular survival of the indicated cell lines determined by sulforhodamine B assay 7 days after treatment with increasing doses of ionizing radiation after 72 h pretreatment with GANT61. Means ± SEM of 3 independent experiments performed in quadruplicate. *p < 0.05 vs. control; #p < 0.05 vs. GANT61. (B) Clonogenic survival curves after 72 h treatment with GANT61 (1μM/10μM) prior to/during IR. Means ± SEM of 3 independent experiments performed in triplicate. * < 0.05 vs. control. (C) Changes in PTCH1, GLI1 and GLI2 protein expression after GANT61 in combination with IR. Samples were pretreated with GANT61 (10 μM) for 72 h prior to IR (4 Gy) and proteins were isolated/lysed 24 h after IR. Protein expression levels of indicated proteins were also assessed by means of densitometry (relative values indicated below the blots). Fig 2. PMID: 27713179



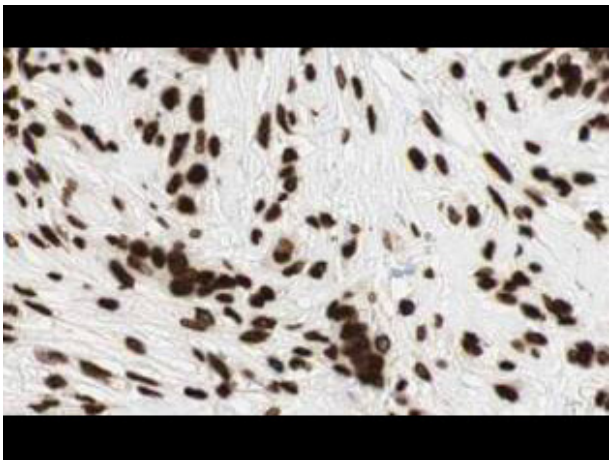
Immunohistochemistry
Representative images of positive IHC staining in benign and malignant prostate tissue and a negative control. Fig 2. PMID: 28877722



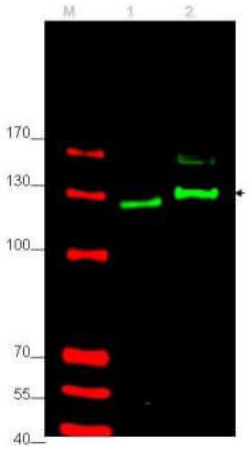
Immunohistochemistry
Representative images of low and high hedgehog pathway protein expression in malignant prostate tissue cores. Tissue cores were stained for Sonic hedgehog (SHH), Patched 1 (PTCH1), Smoothened (SMO), suppressor of fused (SUFU), glioma-associated oncogene (GLI) 1, GLI2, GLI3, cyclin D1, snail family transcriptional repressor 1 (SNAIL), and snail family transcriptional repressor 3 (SNAI3). Original magnification, ×100. Fig 2. PMID: 29339090



Western Blot
Link between metformin and Hedgehog signaling. (A) GLI1, GLI2 and PTCH1 gene expression after 72-h metformin treatment. Means ± SEM of two independent experiments. * $p < 0.05$ vs. control; (B) PTCH1, GLI1 and GLI2 protein expression after 72-h metformin treatment; (C) (p)AMPK protein and GLI1 expression in 22Rv1 cells transfected with AMPK siRNA and treated with metformin (5 mM) 72-h prior to protein lysis. GLI1, glioma-associated oncogene homolog 1; GLI2, glioma-associated oncogene homolog 2; PTCH1, patched 1. Figure provided by CiteAb. Source: Int J Mol Sci, PMID: 28208838.



Immunohistochemistry
Rockland's Affinity Purified anti-Gli2 antibody shows strong cytoplasmic and membranous staining of tumor cells in human breast tissue. Tissue was formalin-fixed and paraffin embedded. Brown color indicates presence of protein, blue color shows cell nuclei. Personal Communication, Kenneth Wester, www.proteinatlas.org, Uppsala, Sweden.



Western Blot
Western blot using Rockland's affinity purified anti-Gli-2 antibody shows detection of Gli-2 protein. Lane 1: rat testes (p/n W12-000-GZ3) and Lane 2: human HEK293 (p/n W09-000-365) whole cell lysates (arrowhead). See Ruppert et al for testing conditions. Each lane contains approximately 35µg of lysate. Primary antibody was used at a 1:400 dilution in 5% BLOTTO (p/n B501-0500) in PBS overnight at 4°C. The membrane was washed and reacted with a 1:10,000 dilution of IRDye® 800 conjugated Gt-a-Rabbit IgG [H&L] MX10 (p/n 611-132-122) for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers in lane M (700 nm channel, red). IRDye® 800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

References

- Gonnissen et al. Patched 1 Expression Correlates with Biochemical Relapse in High-Risk Prostate Cancer Patients. *The American Journal of Pathology* (2018)
- Gonnissen et al. The Effect of Metformin and GANT61 Combinations on the Radiosensitivity of Prostate Cancer Cells. *International Journal of Molecular Sciences* (2017)
- Gonnissen et al. Tissue microarray analysis indicates hedgehog signaling as a potential prognostic factor in intermediate-risk prostate cancer. *BMC Cancer* (2017)
- Gonnissen et al. The hedgehog inhibitor GANT61 sensitizes prostate cancer cells to ionizing radiation both in vitro and in vivo. *Oncotarget* (2016)

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