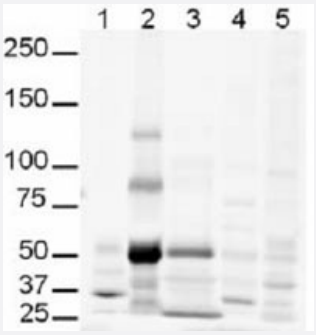
GLI3 polyclonal antibody

Catalog # PAB10052 Size 100 ug

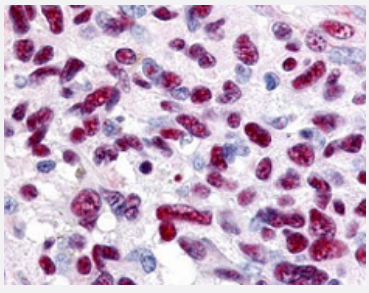
Applications

Western Blot (Tissue lysate)



Western blot using GLI3 polyclonal antibody (Cat # PAB10052) shows detection of multiple bands in human lung lysate believed to be GLI3.
Lanes contain 20 ug of whole cell lysates from 1 - human brain, 2 - human lung, 3 - human spleen, 4 - mouse brain and 5 - mouse lung.
While no recognizable staining can be seen on mouse tissue, human lung shows what may be truncated GLI3 (~80 KDa).
This identity of the strong band at ~50 KDa is unknown.
After blocking, the membrane was probed with the primary antibody diluted to 1:500.
For detection use HRP Gt-a-Rabbit IgG.
Detection of GLI3 by western blot may be enhanced if nuclear extracts are used instead of whole cell lysates as the expression/abundance of GLI3 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.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)



Immunohistochemistry of GLI3 polyclonal antibody (Cat # PAB10052) was used at a 0.625 ug/mL to detect GLI3 in a variety of tissues.
Strong nuclear and smooth muscle staining was noted to be consistent with previously published reports.
Specific staining was 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.
This image shows GLI3 staining of human glioblastoma.
Tissue was formalin-fixed and paraffin embedded.
Personal Communication, Tina Roush, Life Span Biosciences, Seattle, WA.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of GLI3.
Immunogen	A synthetic peptide corresponding to amino acids 41-57 of human GLI3.
Host	Rabbit
Reactivity	Chicken, Chimpanzee, Clawed frog, Dog, Human, Quail
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	ELISA (1:6000-1:30000)Western Blot (1:500-1:2000) Immunohistochemistry (0.5-5 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH_2PO_4, 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Western Blot (Tissue lysate)

  Western blot using GLI3 polyclonal antibody (Cat # PAB10052) shows detection of multiple bands in human lung lysate believed to be GLI3.
  Lanes contain 20 ug of whole cell lysates from 1 - human brain, 2 - human lung, 3 - human spleen, 4 - mouse brain and 5 - mouse lung.
  While no recognizable staining can be seen on mouse tissue, human lung shows what may be truncated GLI3 (~80 KDa).
  This identity of the strong band at ~50 KDa is unknown.
  After blocking, the membrane was probed with the primary antibody diluted to 1:500.
  For detection use HRP Gt-a-Rabbit IgG.
  Detection of GLI3 by western blot may be enhanced if nuclear extracts are used instead of whole cell lysates as the expression/abundance of GLI3 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.

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

  Immunohistochemistry of GLI3 polyclonal antibody (Cat # PAB10052) was used at a 0.625 ug/mL to detect GLI3 in a variety of tissues.
  Strong nuclear and smooth muscle staining was noted to be consistent with previously published reports.
  Specific staining was 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.
  This image shows GLI3 staining of human glioblastoma.
  Tissue was formalin-fixed and paraffin embedded.
  Personal Communication, Tina Roush, Life Span Biosciences, Seattle, WA.

- Enzyme-linked Immunoabsorbent Assay

Gene Info — GLI3

Entrez GeneID	2737
Protein Accession#	P10071;NP_000159
Gene Name	GLI3
Gene Alias	ACLS, GCPS, PAP-A, PAPA, PAPA1, PAPB, PHS, PPDIV
Gene Description	GLI-Kruppel family member GLI3
Omim ID	146510 165240 174200 174700 175700 200990
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a protein which belongs to the C2H2-type zinc finger proteins subclass of the Gli family. They are characterized as DNA-binding transcription factors and are mediators of Soni c hedgehog (Shh) signaling. The protein encoded by this gene localizes in the cytoplasm and acti vates patched Drosophila homolog (PTCH) gene expression. It is also thought to play a role durin g embryogenesis. Mutations in this gene have been associated with several diseases, including Greig cephalopolysyndactyly syndrome, Pallister-Hall syndrome, preaxial polydactyly type IV, and postaxial polydactyly types A1 and B. [provided by RefSeq
Other Designations	DNA-binding protein|OTTHUMP00000025248|OTTHUMP00000159085|oncogene GLI3|zinc fing er protein GLI3

Publication Reference

- Hedgehog related protein expression in breast cancer: gli-2 is associated with poor overall survival.

  Im S, Choi HJ, Yoo C, Jung JH, Jeon YW, Suh YJ, Kang CS.

  Korean Journal of Pathology 2013 Apr; 47(2):116.

  Application : IHC-P, Human, Human breast cancer

- Molecular and clinical analyses of Greig cephalopolysyndactyly and Pallister-Hall syndromes: robust phenotype prediction from the type and position of GLI3 mutations.

  Johnston JJ, Olivos-Glander I, Killoran C, Elson E, Turner JT, Peters KF, Abbott MH, Aughton DJ, Aylsworth AS, Bamshad MJ, Booth C, Curry CJ, David A, Dinulos MB, Flannery DB, Fox MA, Graham JM, Grange DK, Guttmacher AE, Hannibal MC, Henn W, Hennekam RC, Holmes LB, Hoyme HE, Leppig KA, Lin AE, Macleod P, Manchester DK, Marcelis C, Mazzanti L, McCann E, McDonald MT, Mendelsohn NJ, Moeschler JB, Moghaddam B, Neri G, Newbury-Ecob R, Pagon RA, Phillips JA, Sadler LS, Stoler JM, Tilstra D, Walsh Vock

  American Journal of Human Genetics 2005 Apr; 76(4):609.

- Acute lymphoblastic leukemia in a patient with Greig cephalopolysyndactyly and interstitial deletion of chromosome 7 del(7)(p11.2 p14) involving the GLI3 and ZNFN1A1 genes.

  Mendoza-Londono R, Kashork CD, Shaffer LG, Krance R, Plon SE.

  Genes, Chromosomes & Cancer 2005 Jan; 42(1):82.

- Clinical and molecular delineation of the Greig cephalopolysyndactyly contiguous gene deletion syndrome and its distinction from acrocallosal syndrome.

  Johnston JJ, Olivos-Glander I, Turner J, Aleck K, Bird LM, Mehta L, Schimke RN, Heilstedt H, Spence JE, Blancato J, Biesecker LG.

  American Journal of Medical Genetics. Part A 2003 Dec; 123A(3):236.

Pathway

- Basal cell carcinoma
- Hedgehog signaling pathway
- Pathways in cancer

Disease

- Abnormalities
- Chromosome Aberrations
- Cleft Lip

- Cleft Palate
- Clubfoot
- Colorectal Neoplasms
- Craniofacial Abnormalities
- Epilepsy
- Genetic Predisposition to Disease
- Hamartoma
- Mouth Abnormalities
- Pallister-Hall Syndrome
- Syndactyly
- Syndrome