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GJB2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1542a

Product Information

Application	WB, IHC-P, E
Primary Accession	P29033
Other Accession	A2VE67
Reactivity	Human, Mouse
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	26215
Antigen Region	204-226

Additional Information

Gene ID	2706
Other Names	Gap junction beta-2 protein, Connexin-26, Cx26, GJB2
Target/Specificity	This GJB2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 204-226 amino acids from the C-terminal region of human GJB2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GJB2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GJB2
Function	Structural component of gap junctions (PubMed: 16849369, PubMed:17551008, PubMed:19340074, PubMed:19384972, PubMed:21094651, PubMed:26753910). Gap junctions are dodecameric channels that connect the cytoplasm of adjoining cells. They are formed by

the docking of two hexameric hemichannels, one from each cell membrane (PubMed:17551008, PubMed:19340074, PubMed:21094651, PubMed:26753910). Small molecules and ions diffuse from one cell to a neighboring cell via the central pore (PubMed:16849369, PubMed:19384972, PubMed:21094651).

Cellular Location

Cell membrane; Multi-pass membrane protein. Cell junction, gap junction. Note=Colocalizes with GJB4 at gap junction plaques in the cochlea. {ECO:0000250|UniProtKB:Q00977}

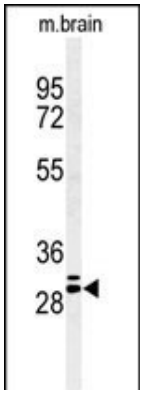
Background

Gap junctions are conduits that allow the direct cell-to-cell passage of small cytoplasmic molecules, including ions, metabolic intermediates, and second messengers, and thereby mediate intercellular metabolic and electrical communication. Gap junction channels consist of connexin protein subunits, which are encoded by a multigene family. GJBs (gap-junction proteins or connexins) play crucial functional roles associated with these channels. Immunohistochemical staining of human cochlear cells demonstrated high levels of GJB2 expression. Mutations in GJB2 are associated with genetically derived hearing impairments, including autosomal recessive nonsyndromic deafness.

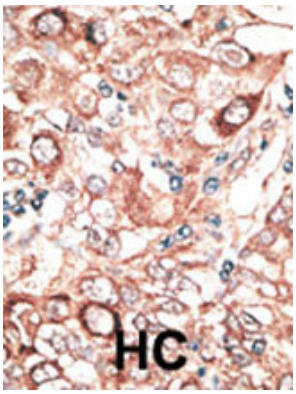
References

Ohtsuka, A., et al., Hum. Genet. 112(4):329-333 (2003).
Yotsumoto, S., et al., Br. J. Dermatol. 148(4):649-653 (2003).
Uyguner, O., et al., Clin. Genet. 62(4):306-309 (2002).
Richard, G., et al., Am. J. Hum. Genet. 70(5):1341-1348 (2002).
Strausberg, R.L., et al., Proc. Natl. Acad. Sci. U.S.A. 99(26):16899-16903 (2002).

Images



Western blot analysis of hGJB2-C218.Connexin (Cat. #AP1542a) in mouse brain tissue lysates (35ug/lane). GJB2 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.