Connexin 30 ABfinity™ Recombinant Rabbit Monoclonal Antibody - Purified

REF Catalog no. 700258

(See product label for lot information)

Clone/PAD: 16H9L8
Isotype: IgG
Gene ID: 14623
Protein Acc. No.: P70689
Qty: 100 µg
Volume: 200 µl
Concentration: 0.5 mg/ml

Formulation
PBS + 0.09% azide

Immunogen
A peptide corresponding to amino acids 241-261 of P70689.

Immunogen sequence
QNEMNELISDSGQNAITSFPS

Reactivity
This antibody reacts with mouse Connexin 30. Based on sequence similarity, reactivity to human, rat, hamster, and bovine is expected.

Storage
2-8°C for up to 1 mo, -20°C for long term storage. Avoid repeated freezing and thawing.

Expiration Date
Expires one year from date of receipt when stored as instructed.

Validated Applications:

	Species	Test Material	Concentration
Western Blotting	mouse	thalamus	1-3 µg/ml
Immunohistochemistry	mouse	adult thalamus	0.5-1 µg/ml

Background
Gap junctions are responsible for transport of ions and metabolites between adjacent cells. These structures are made of two hemichannels, each formed by six connexin molecules. Connexin 30, coded by Cjb6 gene, is a member of the connexin family and is highly expressed in brain and skin (1). Immunohistochemically connexin 30 was localized in astrocytes, at gap junctions between these cells and on the astrocyte side of gap junctions between astrocytes and oligodendrocytes (2). Co-localization with connexin 43 was also observed in this study. Cytoskeleton, especially actin filaments, are important components in the processes of assembly, trafficking and stabilization of connexin 30 gap junctions (3). Knock-out mice studies have also demonstrated that connexin 30 deficiency impairs renal tubular ATP release and pressure natriuresis highlighting the importance of this molecule in kidney (4). Further, in vitro studies have also demonstrated that connexin 30 overexpression enhances cell proliferation (5).

References

1. Dahl E, et al. (1996) Molecular cloning and functional expression of mouse connexin-30,a gap junction gene highly expressed in adult brain and skin. J Biol Chem. 271: 17903-17910.
2. Nagy JI, et al. (1999) Connexin30 in rodent, cat and human brain: selective expression in gray matter astrocytes, co-localization with connexin43 at gap junctions and late developmental appearance. Neuroscience. 88: 447-468.
3. Qu C. et al. (2009) The role of the cytoskeleton in the formation of gap junctions by Connexin 30. Exp Cell Res. 315: 1683-1692.
4. Sipos A, et al. (2009) Connexin 30 deficiency impairs renal tubular ATP release and pressure natriuresis. J Am Soc Nephrol. 20: 1724-1732.
5. Ozawa H, et al. (2009) Promoted cell proliferation by connexin 30 gene transfection to head-and-neck cancer cell line. Anticancer Res. 29: 1981-1985.

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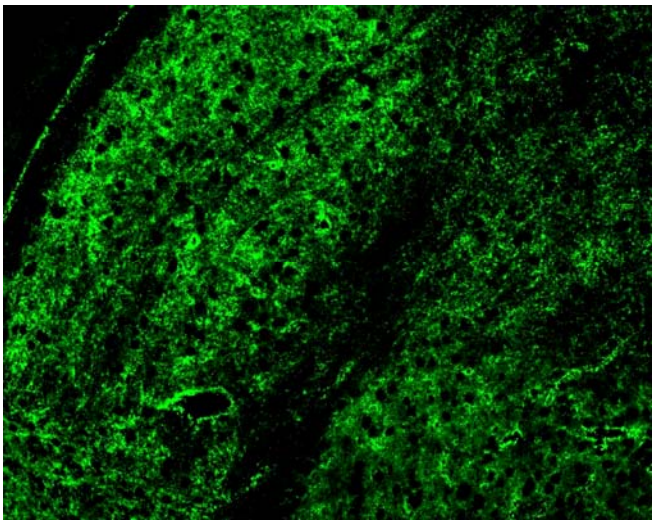
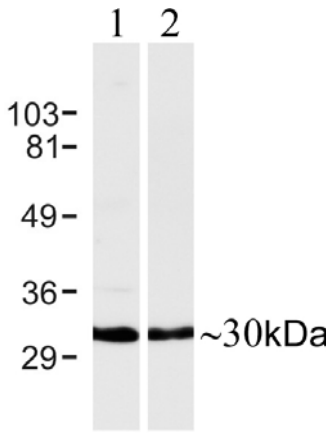


Immunohistochemistry of mouse thalamus tissue labeled with rabbit anti-Connexin 30 (Cat. No. 700258).

Adult mouse thalamus tissue was labeled with rabbit anti-Connexin 30 (0.5 µg/ml). Note staining of the lateral geniculate nucleus (left) and part of the ventral lateral nucleus (right).



Western blot of mouse thalamus lysates labeled with rabbit anti-Connexin 30 (Cat. No. 700258).

Rabbit anti-Connexin 30 (1 µg/ml) was used to label Connexin 30 in adult mouse thalamus lysates (lane 2). Polyclonal rabbit anti-Connexin 30 (Cat. No. 71-2200) was used as a control (lane 1).