10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HES5 Antibody

Catalog # ASC11878

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q5TA89
Other Accession	NP_001010926, 58219048
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	18226
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	HES5 antibody can be used for detection of HES5 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	388585
Other Names	Transcription factor HES-5, Class B basic helix-loop-helix protein 38, bHLHb38, Hairy and enhancer of split 5, HES5, BHLHB38
Target/Specificity	HES5; HES5 antibody is human, mouse and rat reactive. At least two isoforms of HES5 are known to exist; this antibody will detect both isoforms.
Reconstitution & Storage	HES5 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	HES5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HES5
Synonyms	BHLHB38
Function	Transcriptional repressor of genes that require a bHLH protein for their transcription. Plays an important role as neurogenesis negative regulator (By similarity).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00380, ECO:0000255|PROSITE-ProRule:PRU00981}
Tissue Location	Expressed in fetal heart and brain tumors.

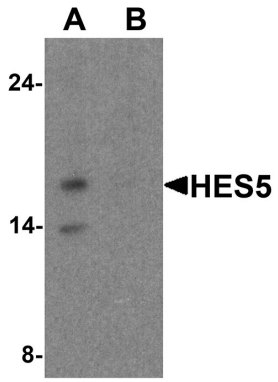
Background

HES5 is a member of the HES family of transcriptional repressors, which are the mammalian homologs of the Drosophila Hairy and Enhancer of Split and contain basic Helix-loop-helix (bHLH) and Orange domains (1). The HES5 gene is a downstream target of the Notch signaling pathway and its expression is downregulated during human cartilage differentiation (2). HES5 can directly repress transcription of the E3 ligase FBW7-beta, creating a feedback loop that modulates Notch-mediated intestinal and neural stem cell fate decisions (3).

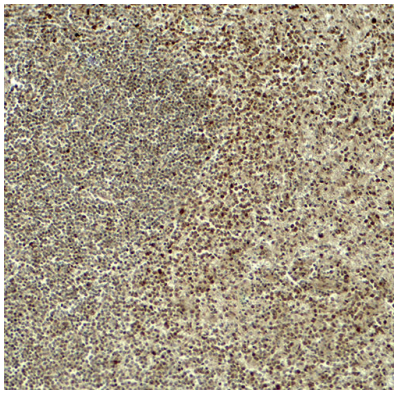
References

Katoh M and Katoh M. Identification and characterization of human HES2, HES3, and HES5 genes in silico. Int. J. Oncol. 2004; 25:529-34.
Karlsson C, Jonsson M, Asp J, et al. Notch and HES5 are regulated during human cartilage differentiation. Cell Tissue Res. 2007; 327:539-51.
Sancho R, Blake SM, Tendeng C, et al. Fbw7 repression by hes5 creates a feedback loop that modulates Notch-mediated intestinal and neural stem cell fate decisions. PLoS Biol. 2013; 11:e1001586.

Images

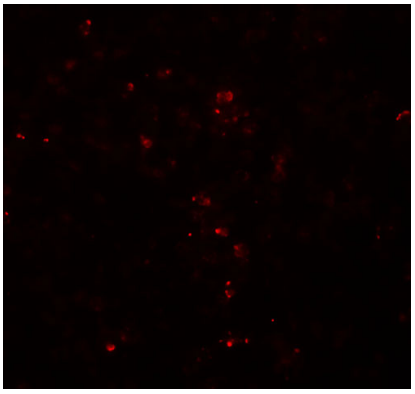


Western blot analysis of HES5 in Raji cell lysate with HES5 antibody at 1 µg/ml (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of HES5 in human spleen tissue with HES5 antibody at 5 µg/ml.

Immunofluorescence of HES5 in human spleen tissue with HES5 antibody at 20 µg/ml.



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