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. |

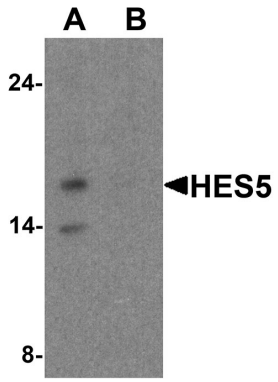
## Background

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).

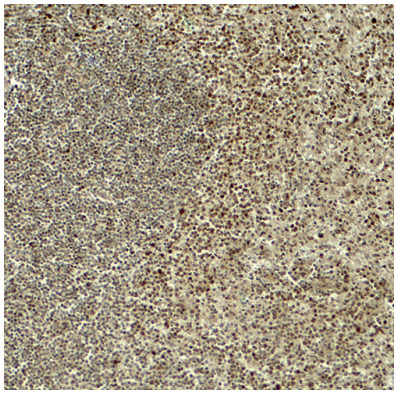
## References

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

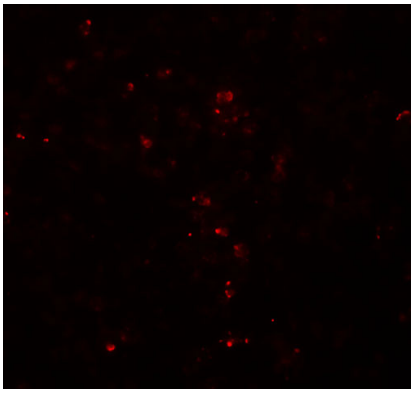



Western blot analysis of HES5 in Raji cell lysate with HES5 antibody at 1 µg/ml (A) the absence and (B) the presence of blocking peptide.



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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.