

HES7 Rabbit pAb

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Product Information

Application IHC-P, IHC-F, IF, E

Primary Accession Q9BYE0

Predicted Human, Mouse, Rat, Dog, Pig, Horse, Sheep

Host Rabbit Clonality Polyclonal 24899 **Calculated MW Physical State** Liquid

KLH conjugated synthetic peptide derived from Human HES7 **Immunogen**

21-100/225 **Epitope Specificity** Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Nucleus.

SIMILARITY

Contains 1 basic helix-loop-helix (bHLH) domain. Contains 1 Orange domain. **SUBUNIT** Transcription repression requires formation of a complex with a corepressor

protein of the Groucho/TLE family (By similarity).

DISEASE Defects in HES7 are the cause of spondylocostal dysostosis type 4 (SCDO4)

> [MIM:613686]. A rare condition of variable severity characterized by vertebral and costal anomalies. The main feature include dwarfism, vertebral fusion, hemivertebrae, posterior rib fusion, reduced rib number, and other rib

malformations.

This product as supplied is intended for research use only, not for use in **Important Note**

human, therapeutic or diagnostic applications.

HES7 is a 225 amino acid transcriptional repressor protein. Localized to the **Background Descriptions**

nucleus, HES7 represses transcription of N box- and E box-containing

promoters. HES7, along with family member HES1, is thought to cooperatively regulate somite formation in the presomitic mesoderm. HES7 may also be essential for coordinated somite segmentation by acting as a segmentation clock. HES7 contains one basic helix-loop-helix (bHLH) domain and one Orange domain. Mutations in HES7 have been found to cause spondylocostal dysostosis, an autosomal recessive disorder characterized by deformities of

the chest and spine.

Additional Information

Gene ID 84667

Other Names Transcription factor HES-7, hHes7, Class B basic helix-loop-helix protein 37,

bHLHb37, Hairy and enhancer of split 7, bHLH factor Hes7, HES7, BHLHB37

Dilution IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500 0-10000

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name HES7

Synonyms BHLHB37

Function Transcriptional repressor. Represses transcription from both N box- and E

box-containing promoters. May with HES1, cooperatively regulate somite

formation in the presomitic mesoderm (PSM). May function as a

segmentation clock, which is essential for coordinated somite segmentation

(By similarity).

Cellular Location Nucleus.

Background

HES7 is a 225 amino acid transcriptional repressor protein. Localized to the nucleus, HES7 represses transcription of N box- and E box-containing promoters. HES7, along with family member HES1, is thought to cooperatively regulate somite formation in the presomitic mesoderm. HES7 may also be essential for coordinated somite segmentation by acting as a segmentation clock. HES7 contains one basic helix-loop-helix (bHLH) domain and one Orange domain. Mutations in HES7 have been found to cause spondylocostal dysostosis, an autosomal recessive disorder characterized by deformities of the chest and spine.

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