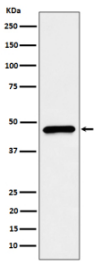
HDHD5 Antibody / Haloacid dehalogenase-like hydrolase domain-containing 5 / CECR5 [clone 29H91] (FY13164)

Catalog No.	Formulation	Size
FY13164	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29H91
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q9BXW7
Applications	Western Blot : 1:500-1:2000 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This HDHD5 antibody is available for research use only.



Western blot analysis of CECR5/HDHD5 expression in HepG2 cell lysate using HDHD5 antibody. Predicted molecular weight ~46 kDa.

Description

HDHD5 antibody detects Haloacid dehalogenase-like hydrolase domain-containing protein 5, encoded by the HDHD5

gene, also known as CECR5. This protein belongs to the haloacid dehalogenase-like hydrolase (HAD) superfamily of enzymes, which share a conserved domain associated with phosphatase and hydrolase activity. Although less characterized than some other HAD proteins, Haloacid dehalogenase-like hydrolase domain-containing protein 5 is believed to play a role in regulating nucleotides and possibly RNA metabolism. HDHD5 antibody provides researchers with a highly specific reagent for studying the function of this enigmatic protein and its role in cellular physiology.

The HAD superfamily includes enzymes that act on a variety of phosphorylated substrates, ranging from sugars to nucleotides. Research using HDHD5 antibody has revealed that Haloacid dehalogenase-like hydrolase domain-containing protein 5 contains the signature catalytic motifs typical of HAD enzymes, suggesting conserved catalytic potential. Structural studies indicate that it adopts the canonical HAD fold, characterized by a Rossmann-like core and conserved aspartate residues required for catalytic activity. These features strongly suggest that HDHD5 has enzymatic activity related to phosphatase or hydrolase function, though the precise substrate remains under investigation.

Genetic studies have linked HDHD5 to the Cat Eye syndrome critical region on chromosome 22, where the CECR5 gene is located. Research using HDHD5 antibody has suggested that altered expression of this protein may contribute to phenotypic features of this syndrome, which is characterized by congenital anomalies involving the eyes, heart, and skeletal system. Although the exact contribution of Haloacid dehalogenase-like hydrolase domain-containing protein 5 to Cat Eye syndrome remains unclear, its chromosomal location and potential enzymatic activity make it a protein of strong biomedical interest.

In addition to developmental disorders, emerging evidence suggests that HDHD5 may play roles in RNA regulation and cellular stress responses. Studies with HDHD5 antibody have demonstrated that the protein is expressed in multiple tissues, with particularly high expression in metabolically active organs. This distribution pattern supports a potential role in nucleotide metabolism or signaling. Because many HAD superfamily members regulate metabolic flux, Haloacid dehalogenase-like hydrolase domain-containing protein 5 may influence pathways tied to energy balance and gene expression control.

HDHD5 antibody is a versatile reagent applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting confirms protein size and expression across tissues, immunohistochemistry highlights tissue-specific localization, and immunofluorescence reveals its subcellular distribution, which appears to be both cytoplasmic and nuclear. These applications make HDHD5 antibody valuable for investigating its role in metabolism, signaling, and development.

Functional studies with HDHD5 antibody are beginning to clarify its interaction network. Evidence suggests that Haloacid dehalogenase-like hydrolase domain-containing protein 5 may interact with RNA binding proteins or nucleotide processing enzymes, supporting a potential function in RNA maturation or degradation. Its presence in both cytoplasmic and nuclear compartments further suggests a dual role in metabolic and genetic regulation. These observations position HDHD5 as an emerging regulator in pathways not yet fully defined but of significant biomedical importance.

By supplying validated HDHD5 antibody reagents, NSJ Bioreagents supports researchers exploring the function of lesser-known HAD family proteins. Detection of Haloacid dehalogenase-like hydrolase domain-containing protein 5 allows investigation of its contribution to enzymatic processes, genetic disorders, and possibly metabolic regulation. As understanding grows, HDHD5 may emerge as an important player in the broader network of hydrolase-mediated signaling and disease.

Application Notes

Optimal dilution of the HDHD5 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human CECR5 was used as the immunogen for the HDHD5 antibody.

Storage

Store the HDHD5 antibody at -20oC.

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