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BHLHA15 Antibody
Catalog # ASC11717

Specification

BHLHA15 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q7RTS1
Other Accession	NP_803238, 29126247
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 21 kDa** **Observed: 24 kDa KDa**
Application Notes	**BHLHA15 antibody can be used for detection of BHLHA15 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

BHLHA15 Antibody - Additional Information

Gene ID **168620**

Target/Specificity
BHLHA15; BHLHA15 antibody is human, mouse and rat reactive.

Reconstitution & Storage
BHLHA15 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
BHLHA15 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

BHLHA15 Antibody - Protein Information

Name BHLHA15

Synonyms BHLHB8, MIST1

Function
Plays a role in controlling the transcriptional activity of MYOD1, ensuring that expanding myoblast populations remain undifferentiated. Repression may occur through muscle-specific E-box occupancy by homodimers. May also negatively regulate bHLH-mediated transcription through an N-terminal repressor domain. Serves as a key regulator of acinar cell function, stability, and identity. Also required for normal organelle localization in exocrine cells and for mitochondrial calcium ion transport. May function as a unique regulator of gene expression in several different embryonic and postnatal cell lineages. Binds to the E-box consensus sequence 5'-CANNTG-3' (By similarity).

Cellular Location
Nucleus.

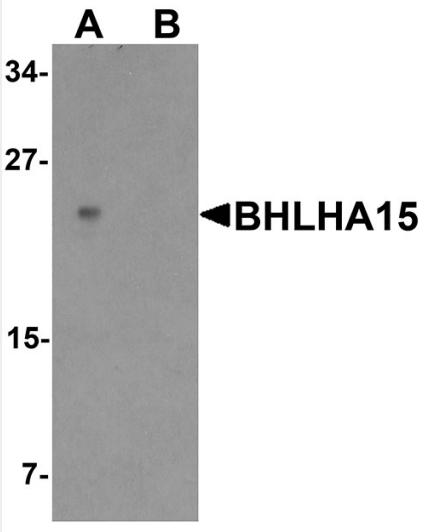
Tissue Location
Expressed in brain, liver, spleen and skeletal muscle.

BHLHA15 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

BHLHA15 Antibody - Images



Western blot analysis of BHLHA15 in rat small Intestine tissue lysate with BHLHA15 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide

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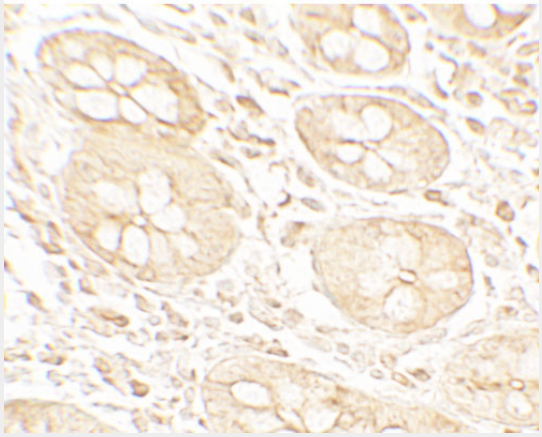
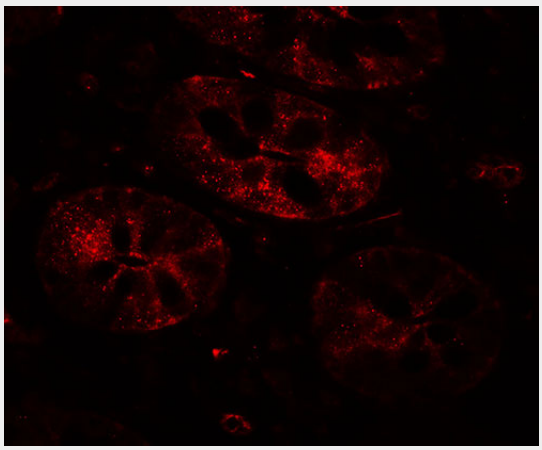


Immunohistochemistry of BHLHA15 in human small intestine tissue with BHLHA15 antibody at 5 µg/mL.



Immunofluorescence of BHLHA15 in human small intestine tissue with BHLHA15 antibody at 20 µg/mL.

BHLHA15 Antibody - Background

BHLHA15 (basic helix-loop-helix protein 15), also known as MIST1 (muscle intestine and stomach expression 1) belongs to the bHLH family of transcription factors and plays a role in regulating the transcriptional activity of MYOD1 in muscle cell development as well as serving as a key regulator of acinar cell function (1,2). BHLHA15 contains a basic helix-loop-helix (bHLH) domain and is capable of binding to E-box motifs as a homodimer or a heterodimer with E-proteins. It may also negatively regulate bHLH-mediated transcription through a N-terminal repressor domain (3). It is expressed in mammary epithelial cells and is essential for the regulation of mammary gland development (4).

BHLHA15 Antibody - References

Lemercier C, To RQ, Swanson BJ et al. MIST1: a novel basic helix-loop-helix transcription factor exhibits a developmentally regulated expression pattern. Dev. Biol. 1997; 182:101-13.
Pin CL, Rukstalis JM, Johnson C, et al. The bHLH transcription factor MIST1 is required to maintain exocrine pancreas cell organization and acinar cell identity. J. Cell Biol. 2001; 155:519-30.
Lemercier C, To RQ, Carrasco RA et al. The basic helix-loop-helix transcription factor Mist1 functions as a transcriptional repressor of myoD. EMBO J. 1998; 17:1412-22.
Zhao Y, Johansson C, Tran T, et al. Identification of a basic helix-loop-helix transcription factor expressed in mammary gland alveolar cells and required for maintenance of the differentiated state. Mol. Endocrinol. 2006; 20:2187-98.