



Anti-human/mouse HAND2 Antibody

ORDERING INFORMATION

Catalog Number: AF3876

Lot Number: YNQ01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human/mouse HAND2

Immunogen: *E. coli*-derived rhHAND2

Ig Type: goat IgG

Applications: Western blot
Immunohistochemistry
Direct ELISA

Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant human Heart and Neural crest Derivatives expressed 2 (rhHAND2; aa 1 - 217; Accession # P61296). HAND2 specific IgG was purified by human HAND2 affinity chromatography. HAND2 (also known as dHAND, Thing-2 and Hed) is a 24 kDa, class B member of the basic helix-loop-helix transcription factors superfamily. HAND2 is essential for cardiac morphogenesis and required for vascular development and regulation of angiogenesis, possibly through VEGF signaling. HAND2 is also implicated in limb development acting as an upstream regulator of sonic hedgehog. Alternative initiation and internal deletions result in at least three potential HAND2 isoforms. Human and mouse HAND2 proteins are 100% identical.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to recognize human and mouse HAND2 in the applications listed below.

Applications

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human and mouse HAND2. The detection limit for rhHAND2 and rmHAND2 is approximately 25 ng/lane under non-reducing and reducing conditions.

Immunohistochemistry - This antibody has been used at a concentration of 10 µg/mL to detect HAND2 in mouse embryos. Cells were fixed with PBS containing 4% paraformaldehyde and blocked with PBS containing 10% normal donkey serum, 0.1% Triton X-100, and 1% BSA. After blocking, cells were incubated with diluted primary antibody followed by NorthernLights™ 557-coupled anti-goat IgG at room temperature in the dark. Between each step, cells were washed with PBS containing BSA.

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human and mouse HAND2. The detection limit for rhHAND2 and rmHAND2 is approximately 1.3 ng/well. In this format, this antibody shows approximately 10% cross-reactivity with rhHAND1.

Optimal dilutions should be determined by each laboratory for each application.

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