

## ORDERING INFORMATION

**Catalog Number:** AF3168

**Lot Number:** WTD01

**Size:** 100 µg

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

**Storage:** -20° C

**Reconstitution:** sterile PBS

**Specificity:** human HAND1

**Immunogen:** *E. coli*-derived rhHAND1

**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 1 (rhHAND1; aa 1 - 215; Accession # O96004). Human HAND1 specific IgG was purified by human HAND1 affinity chromatography. HAND1 belongs to the HAND family of conserved basic helix-loop-helix transcription factors. It is expressed in the heart, ganglia, neural crest derivatives and extraembryonic tissues. HAND1 plays an essential role in heart development and is critical for the specification of extraembryonic tissues including trophoblasts. Human and mouse HAND1 share approximately 92% amino acid sequence homology.

## 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 HAND1 in the applications listed below. In direct ELISAs and western blots, this antibody shows approximately 10% cross-reactivity with rhHAND2.

## Applications

**Western blot** - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect human HAND1. The detection limit for rhHAND1 is approximately 1 ng/lane under non-reducing and reducing conditions.

**Immunohistochemistry** - This antibody can be used at a concentration of 10 µg/mL to detect HAND1 in human heart tissue sections. Cells were fixed with PBS containing 4% paraformaldehyde for 20 minutes at room temperature and blocked with PBS containing 10% normal donkey serum, 0.1% Triton X-100, and 1% BSA for 45 minutes at room temperature. After blocking, cells were incubated with diluted primary antibody overnight at 4° C followed by Rhodamine Red-coupled anti-goat IgG at room temperature in the dark for one hour. Between each step, cells were washed with PBS containing 0.1% BSA.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human HAND1. The detection limit for rhHAND1 is approximately 0.2 ng/well.

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