



Anti-human FoxH1 Antibody

ORDERING INFORMATION

Catalog Number: AF4248

Lot Number: ZLA01

Size: 100 µg

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

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human FoxH1

Immunogen: *E. coli*-derived rhFoxH1 (aa 164 - 272)

Ig Type: sheep IgG

Applications: Western blot
Immunocytochemistry
Direct ELISA

Background

FoxH1 (also known as FAST-1) is a 39 kDa, class 2, subfamily H member of the FOX (forkhead box) family of transcription factors. It is a nuclear protein that binds DNA promoter sites. It does not independently regulate transcription but interacts with SMAD2/4 to activate, and SMAD3/4 to inhibit gene transcription. Human FOXH1 is 365 amino acids (aa) in length. It contains an NLS (aa 22 - 30), one FKH (fork head) DNA-binding domain (aa 32 - 128) and a SMAD-interaction region (aa 273 - 354). Over aa 164 - 272, human FOXH1 is 55% identical to mouse FoxH1.

Preparation

Produced in sheep immunized with purified, *E. coli*-derived, recombinant human FoxH1 (rhFoxH1; aa 164 - 272; Accession # O75593). Human FoxH1 specific IgG was purified by human FoxH1 affinity chromatography.

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 FoxH1 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 FoxH1. The detection limit for rhFoxH1 is approximately 5 ng/lane under non-reducing and reducing conditions.

Immunocytochemistry - This antibody has been used at a concentration of 10 µg/mL to detect human FoxH1 in human BG01V stem cells. 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 for 3 hours at room temperature followed by R&D Systems NorthernLights™ 557 donkey anti-sheep IgG (Catalog # NL010) at room temperature for 1 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 FoxH1. The detection limit for rhFoxH1 is approximately 0.2 ng/well. In this format, this antibody shows less than 1% cross-reactivity with rhFoxB2.

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

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