



## Anti-human CHST4 Antibody

### ORDERING INFORMATION

**Catalog Number:** AF5357

**Lot Number:** CCQP01

**Size:** 100 µg

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

**Storage:** -20° C

**Reconstitution:** sterile PBS

**Specificity:** human CHST4

**Immunogen:** CHO cell-derived rhCHST4 (aa 23 - 386)

**Ig Type:** sheep IgG

**Applications:** Western blot  
Neutralization  
Immunoprecipitation  
Direct ELISA

### Preparation

Produced in sheep immunized with purified, CHO cell-derived, recombinant human CHST4 (rhCHST4; R&D Systems, Catalog # 5357-ST). Human CHST4 specific IgG was purified by human CHST4 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 CHST4 in direct ELISAs and Western blots. In direct ELISAs, this antibody shows approximately 25% cross-reactivity with rmCHST4 and less than 5% cross-reactivity with rhCHST1, rhCHST5 and rhCHST6.

### Applications

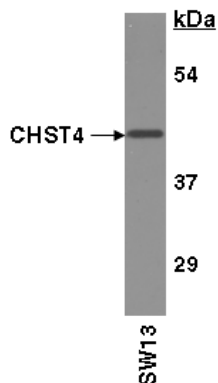
**Western blot** - An antibody concentration of 1.0 µg/mL is recommended.

**Neutralization** - This antibody has been used to inhibit/neutralize the enzymatic activity of rhCHST4. The antibody was preincubated with the active enzyme at different molar ratios at room temperature for 30 minutes. The remaining enzymatic activity was determined by measuring its ability to transfer sulfate from PAPS to disaccharide acceptor β-D-GlcNAc-1→6)-α-D-Man→OMe. 50% of the enzymatic activity was inhibited by the antibody at approximately 10.7 µg/mL (IC<sub>50</sub>) under conditions in which the enzyme was present at 1.33 µg/mL and the substrate concentration was 833 nM. Considering the molecular masses of the enzyme (42.6 kDa) and the antibody (150 kDa), IC<sub>50</sub> was achieved at approximately 2.3:1 molar ratio of the antibody to the enzyme.

**Immunoprecipitation** - This antibody has been used to immunoprecipitate rhCHST4 from conditioned media of transfected CHO cells.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human CHST4. The detection limit for rhCHST4 is approximately 1 ng/well.

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



### Detection of CHST4 with AF5357.

Cell lysates were resolved by SDS-PAGE, transferred to an Immobilon-P membrane and immunoblotted with 1.0 µg/mL sheep anti-hCHST4.