



## ***Anti-human Aminopeptidase O/ONPEP Antibody***

### **ORDERING INFORMATION**

**Catalog Number:** AF4647

**Lot Number:** CAOB01

**Size:** 100 µg

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

**Storage:** -20° C

**Reconstitution:** sterile PBS

**Specificity:** human Aminopeptidase O

**Immunogen:** Sf 21-derived  
rhAminopeptidase O isoform 1

**Ig Type:** goat IgG

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

### ***Background***

Aminopeptidase O (AP-O; also C9orf3) is a 93 kDa (predicted), intracellular member of the M1 metalloprotease family of enzymes. It is expressed in heart, testis and pancreas where it apparently cleaves N-terminal Arg and Asn residues. Human AP-O is 819 amino acids in length. It contains one catalytic domain (aa 167 - 589) with a Zn-binding site (His479 - His483) and a C-terminal ARM region (aa 706 - 819). At least three additional isoforms exist. One shows a deletion of aa 455 - 553; a second has an 11 aa substitution for the C-terminal 265 amino acids; and a third shows both a deletion of aa 455 - 553 and an 11 aa substitution for the C-terminal 46 amino acids. Full-length human AP-O is 76% aa identical to mouse AP-O.

### ***Preparation***

Produced in goats immunized with purified, Sf 21-derived, recombinant human Aminopeptidase O isoform 1 (rhAminopeptidase O; aa 1 - 819; Accession # Q8N6M6). Human Aminopeptidase O specific IgG was purified by human Aminopeptidase O 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 Aminopeptidase O 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 Aminopeptidase O. The detection limit for rhAminopeptidase O is approximately 5 ng/lane under non-reducing and reducing conditions.

**Immunoprecipitation** - This antibody has been used to immunoprecipitate rhAminopeptidase O from Sf 21 lysates.

**Immunohistochemistry** - This antibody will detect human ONPEP in cells and tissues. The working dilution is 3 - 10 µg/mL. For chromogenic detection of labeling, use R&D Systems Cell and Tissue Staining Kits (CTS series). Antigen retrieval is recommended.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human Aminopeptidase O. The detection limit for rhAminopeptidase O is approximately 0.3 ng/well.

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