

## Product datasheet

# Recombinant human BACE1 protein (Active) ab168075

2 Images

### Description

<b>Product name</b>	Recombinant human BACE1 protein (Active)
<b>Biological activity</b>	Determined using a $\beta$ -Secretase Activity Assay Kit. Specific units $> 120 \times 10^3$ units/mg. One unit is defined as the amount of enzyme that produces 1 pmol/min EDANS by hydrolyzing the substrate BVT9964 (NH <sub>2</sub> -Arg-Glu(EDANS)-Glu-Val-Asn-Leu-Asp-Ala-Glu-Phe-Lys(DABCYL)-Arg-COOH) at 37°C in 100 mM acetate buffer pH 4.0.
<b>Purity</b>	$> 90$ % SDS-PAGE.
<b>Expression system</b>	Insect cells
<b>Accession</b>	<b><u>P56817</u></b>
<b>Protein length</b>	Protein fragment
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Predicted molecular weight</b>	47 kDa
<b>Amino acids</b>	46 to 460
<b>Additional sequence information</b>	Mature protease domain.

### Specifications

Our **Abpromise guarantee** covers the use of **ab168075** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	SDS-PAGE Functional Studies
<b>Form</b>	Liquid
<b>Additional notes</b>	This product is manufactured by BioVision, an Abcam company and was previously called 7609 Active Recombinant Human beta-Secretase 1 - BACE-1. 7609-5 is the same size as the 5 $\mu$ g size of ab168075.  Produced using non-baculovirus insect cells.

### Preparation and Storage

## Stability and Storage

Shipped at 4°C. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

Constituents: 50% Glycerol (glycerin, glycerine), PBS

This product is an active protein and may elicit a biological response in vivo, handle with caution.

## General Info

### Function

Responsible for the proteolytic processing of the amyloid precursor protein (APP). Cleaves at the N-terminus of the A-beta peptide sequence, between residues 671 and 672 of APP, leads to the generation and extracellular release of beta-cleaved soluble APP, and a corresponding cell-associated C-terminal fragment which is later released by gamma-secretase.

### Tissue specificity

Expressed at high levels in the brain and pancreas. In the brain, expression is highest in the substantia nigra, locus coeruleus and medulla oblongata.

### Sequence similarities

Belongs to the peptidase A1 family.

### Domain

The transmembrane domain is necessary for its activity. It determines its late Golgi localization and access to its substrate, APP.

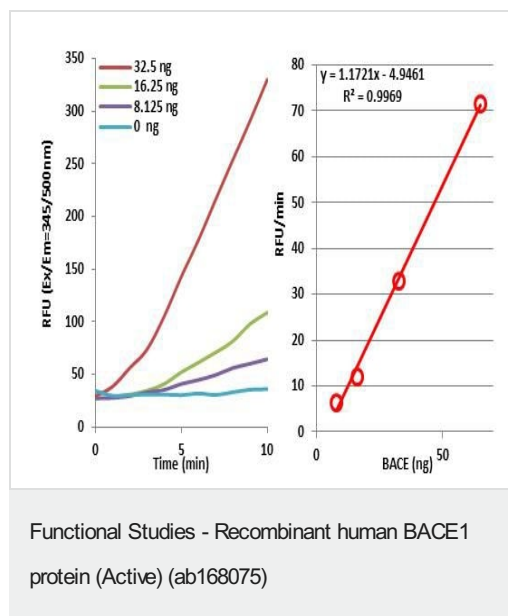
### Post-translational modifications

Glycosylated.

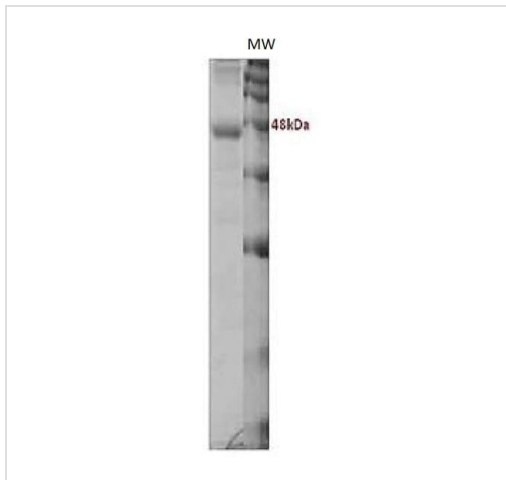
### Cellular localization

Membrane. Golgi apparatus > trans-Golgi network. Endoplasmic reticulum. Endosome. Cell surface. Predominantly localized to the later Golgi/trans-Golgi network (TGN) and minimally detectable in the early Golgi compartments. A small portion is also found in the endoplasmic reticulum, endosomes and on the cell surface.

## Images



Example of BACE1 Activity Assay.



SDS-PAGE analysis of ab168075.

SDS-PAGE - Recombinant human BACE1 protein  
(Active) (ab168075)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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