

# Recombinant Human TPP1/CLN2 Protein (His Tag)

Catalog Number:PKSH030613



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

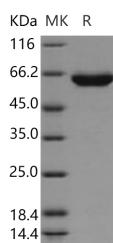
## Description

|                                    |  |
|------------------------------------|--|
| <b>Synonyms</b>                    | Tripeptidyl-Peptidase 1;TPP-1;Cell Growth-Inhibiting Gene 1 Protein;Lysosomal Pepstatin-Insensitive Protease;LPIC;Tripeptidyl Aminopeptidase;TPP1;CLN2;GIG1;LPIC;SCAR7;TPP-1 |
| <b>Species</b>                     | Human  |
| <b>Expression Host</b>             | Baculovirus-Insect Cells   |
| <b>Sequence</b>                    | Met 1-Pro 563  |
| <b>Accession</b>                   | AAH14863.1   |
| <b>Calculated Molecular Weight</b> | 60.7 kDa   |
| <b>Observed molecular weight</b>   | 60 kDa   |
| <b>Tag</b>                         | C-His  |
| <b>Bioactivity</b>                 | Measured by the cleavage of AlaAlaPheAMC. The specific activity is > 850 pmoles/min/μg.  |

## Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per μg of the protein as determined by the LAL method.  |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.                      |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.  |
| <b>Formulation</b>    | Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.   |

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Tripeptidyl-peptidase 1 (TPP1 / CLN2) is a member of the sedolisin family of serine proteases. The protease functions in the lysosome to cleave N-terminal tripeptides from substrates, and has weaker endopeptidase activity. It is synthesized as a catalytically-inactive enzyme which is activated and auto-proteolyzed upon acidification. TPP1 / CLN2 May act as a non-specific lysosomal peptidase which generates tripeptides from the breakdown products produced by lysosomal

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proteinases. Defects in TPP1 / CLN2 are the cause of neuronal ceroid lipofuscinosis type 2 (CLN2), a form of neuronal ceroid lipofuscinosis which is associated with the failure to degrade specific neuropeptides and a subunit of ATP synthase in the lysosome. Neuronal ceroid lipofuscinoses are progressive neurodegenerative, lysosomal storage diseases characterized by intracellular accumulation of autofluorescent liposomal material, and clinically by seizures, dementia, visual loss, and/or cerebral atrophy.

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