

## Recombinant Human PAM

**Cat. No.** PAM-30780TH    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant fragment of Human PAM with N terminal proprietary tag; Predicted MW 37.51kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>           | Wheat Germ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 108 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>      | This gene encodes a multifunctional protein. It has two enzymatically active domains with catalytic activities - peptidylglycine alpha-hydroxylating monooxygenase (PHM) and peptidyl-alpha-hydroxyglycine alpha-amidating lyase (PAL). These catalytic domains work sequentially to catalyze neuroendocrine peptides to active alpha-amidated products. Multiple alternatively spliced transcript variants encoding different isoforms have been described for this gene but some of their full length sequences are not yet known. |
| <b>Molecular Weight</b> | 37.510kDa inclusive of tags                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Purity</b>           | Proprietary Purification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Storage buffer</b>   | pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage</b>                  | Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.                                                                                                                                        |
| <b>Sequences of amino acids</b> | FRVGGETGSKYFVLQVHYGDISAFRDNNKDCSGVSLHLTR LPQPLIAGMYLMMSVD<br>TVIPAGEKVVNSDISCHYKNYPMH VFAYRVHTHHLGKVVSGYRVRNGQWTLI                                                                                                               |
| <b>Sequence Similarities</b>    | In the C-terminal section; belongs to the peptidyl-alpha-hydroxyglycine alpha-amidating lyase family. In the N-terminal section; belongs to the copper type II ascorbate-dependent monooxygenase family. Contains 5 NHL repeats. |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PAM peptidylglycine alpha-amidating monooxygenase [ Homo sapiens ]                                                                                                                                                    |
| <b>Official Symbol</b> | PAM                                                                                                                                                                                                                   |
| <b>Synonyms</b>        | PAM; peptidylglycine alpha-amidating monooxygenase; peptidyl-glycine alpha-amidating monooxygenase; PAL; peptidyl alpha hydroxyglycine alpha amidating lyase; peptidylglycine alpha hydroxylating monooxygenase; PHM; |
| <b>Gene ID</b>         | 5066                                                                                                                                                                                                                  |
| <b>mRNA Refseq</b>     | NM_000919                                                                                                                                                                                                             |
| <b>Protein Refseq</b>  | NP_000910                                                                                                                                                                                                             |
| <b>MIM</b>             | 170270                                                                                                                                                                                                                |
| <b>Uniprot ID</b>      | P19021                                                                                                                                                                                                                |
| <b>Chromosome</b>      | 5q                                                                                                                                                                                                                    |

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**Location****Function**

L-ascorbic acid binding; copper ion binding; lyase activity; metal ion binding;  
peptidylamidoglycolate lyase activity;

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