

## PAD1 Protein

Full length recombinant human protein expressed in Sf9 cells

**Catalog # P312-30G**

Lot # 1243-1

### Product Description

Recombinant full-length human PAD1 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number is [NM\\_013358](#).

### Gene Aliases

HPAD10; PAD11; PDI; PDI1

### Formulation

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

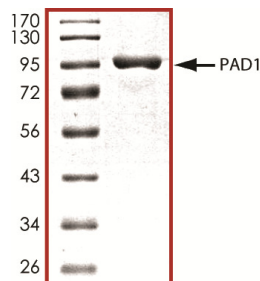
### Scientific Background

PAD1 is a member of the peptidyl arginine deiminase family of enzymes, which catalyze the post-translational deimination of proteins by converting arginine residues into citrullines in the presence of calcium ions. PAD1 is a component of the 26S proteasome, a multiprotein complex that degrades proteins targeted for destruction by the ubiquitin pathway. The overexpression of PAD1 induced a distinctive pattern of multidrug resistance in mammalian cells and moderate resistance to ultraviolet light (1). PAD1 is also responsible for substrate deubiquitination during proteasomal degradation (2).

### References

1. Spataro, V. et.al: Resistance to diverse drugs and ultraviolet light conferred by overexpression of a novel human 26 S proteasome subunit. J. Biol. Chem. 272: 30470-30475, 1997.
2. Yao, T. et.al: A cryptic protease couples deubiquitination and degradation by the proteasome. Nature 419: 403-407, 2002.

### Purity



The purity of PAD1 was determined to be **>95%** by densitometry. Approx. MW **95kDa**.

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Catalog Number	P312-30G
Specific Lot Number	1243-1
Purity	>95%
Concentration	0.1 µg/µl
Stability	1yr At -70°C from date of shipment
Storage & Shipping	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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