

Product Information

PAD1, GST-tagged, human recombinant, expressed in *Sf9* cells

Catalog Number **SRP5223**
Storage Temperature -70°C

Synonyms: HPAD10, PADI1, PDI, PDI1

Product Description

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

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

Molecular mass: ~95 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

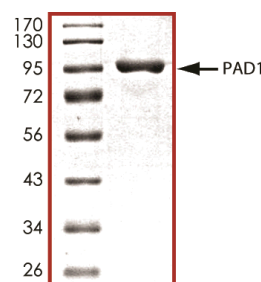
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



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).

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