

PAD4 active protein

PAD4, Active

CATALOG #
AAA14260

HOST
Sf9 Insect Cells

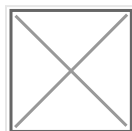
PRODUCT SYNONYMS

PAD4; Active; PADI4; PAD; PDI4; PDI5; PAD4 active protein

PRODUCT SPECIFICATIONS

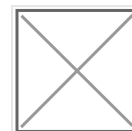
Host	Sf9 Insect Cells
Purity/Purification	>95%
Form/Format	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Concentration	0.1ug/ul (varies by lot)
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Store product at -70 degree 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.

IMAGES



SDS-PAGE

The purity of PAD4 was determined to be >95% by densitometry. Approx. MW 96 kDa.



Specific Activity

The specific activity of PAD4 was determined to be 4.1 nmol/min/mg as per activity assay protocol.

ADDITIONAL INFORMATION

Related Product Information for PAD4 active protein

Recombinant full-length human PAD4 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag. The gene accession number is BC025718.

Scientific Background: PAD4 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 (1). PAD4 is essential for antibacterial innate immunity mediated by neutrophil extracellular traps (NETs) (2). PAD4 play a role in granulocyte and macrophage development leading to inflammation and immune response. PAD4 also mediates the gene expression by regulating arginine methylation and citrullination in histones (3).

References

1. Nakashima, K. et.al: Molecular characterization of peptidylarginine deiminase in HL-60 cells induced by retinoic acid and 1-alpha,25-dihydroxyvitamin D(3). J. Biol. Chem. 274: 27786-27792, 1999.
2. Li, P.et.al: PAD4 is essential for antibacterial innate immunity mediated by neutrophil extracellular traps. J. Exp. Med. 207: 1853-1862, 2010.
3. Wang, Y. et.al: Human PAD4 regulates histone arginine methylation levels via demethyliminination. Science 306: 279-283, 2004.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/sf9-insect-cells-active-protein/pad4/14260>