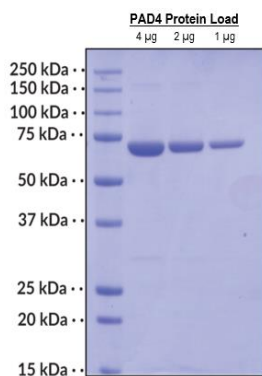


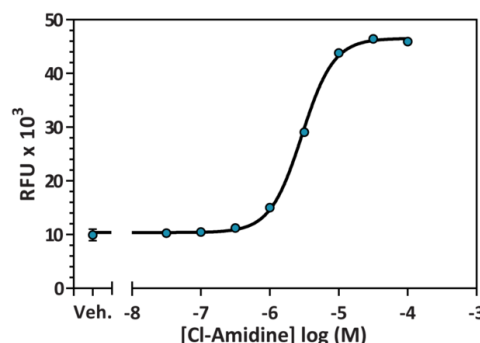
# Active PAD4, Human Recombinant

03/21

<b>CATALOG NO:</b>	P1720-50 50 µg P1720-100 100 µg
<b>ALTERNATE NAMES:</b>	Peptidyl Arginine Deiminase 4; PDI5; HL-60 PAD; PADI5; PDI4; PAD; PADI4
<b>MOL. WT.</b>	75.8 kDa
<b>NCBI GENE ID:</b>	23569
<b>ACCESSION NO.:</b>	Q9UM07
<b>PURITY:</b>	≥ 85% by SDS-PAGE
<b>SOURCE:</b>	<i>E. coli</i>
<b>AMINO ACID SEQUENCE:</b>	Full length human PAD4 protein (amino acids 2 to 663) with N-terminal His tag
<b>SPECIFIC ACTIVITY:</b>	Activity output measured by the production of ammonium ions when enzyme acts on N-benzoyl-L-arginine ethyl ester (BAEE) substrate
<b>FORM:</b>	Liquid
<b>FORMULATION:</b>	50 mM HEPES, pH 8.0, 300 mM NaCl, 1 mM DTT, 10% glycerol
<b>STORAGE CONDITIONS:</b>	Upon receipt, aliquot and store at -80 °C. Avoid repeated freeze-thaw cycles.
<b>DESCRIPTION:</b>	Protein arginine deiminases (PADs) are a family of guanidine-modifying enzymes that catalyze the post-translational modification of target proteins by converting arginine to citrulline. Excessive citrullination of proteins may result in disease states. PAD4 (also known as PADI5) is expressed in neutrophils and in a variety of tissues. PAD4 is known to citrullinate histones, which initiates chromatin decondensation in neutrophils and the subsequent release of neutrophil extracellular traps (NETs), which leads to a lytic form of cell death known as NETosis. The presence of serum PAD4 autoantibodies has been associated with rheumatoid arthritis.



Various amounts of Active Human Recombinant PAD4 was loaded on SDS-PAGE under reducing conditions and visualized by Coomassie blue stain.



Active Human Recombinant PAD4 activity can be inhibited by Cl-Amidine (Cat. No. B2802). Fluorescence output is inversely proportional to the amount of citrullination by PAD4.

## RELATED PRODUCTS:

Mycoplasma Arginine Deiminase (ADI), Recombinant Protein (Cat. No. P1278)  
 PAD4 Monoclonal Antibody (Clone 11F9) (Cat. No. A2314M)  
 Human Fibrinogen (PAD4 Citrullinated) (Cat. No. P1718)  
 Arginine Deiminase (ADI), Pseudomonas Aeruginosa Recombinant (Cat. No. P1411)  
 PAD4 Polyclonal Antibody (Cat. No. A2314P)

**FOR RESEARCH USE ONLY! Not to be used on humans.**