

Product Name

recombinant mouse Peptidyl Arginine Deiminase 4 (PAD4)

CAT No.

MQ-16.103-10

Size

10 Units



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Intended use

This product is for research use only. NOT for use in diagnostic or therapeutic procedures.

Recombinant mouse PAD4 is intended for studies on its deimination properties.

Unit Definition

One unit will produce 1 μmole of N-α-benzoylcitrulline ethyl ester from BAEE per hour at 55°C at pH 7.2.

Physical form

Solution in 20 mM Tris-HCl, pH 7.6, containing 10 mM 2-βmercaptoethanol, 400mM NaCl, 250mM Imidazol, 1mM EDTA and 10% glycerol.

Activity

Activity has been tested in an MQR Antibody Based Assay for PAD activity (ABAP) (Cat. no. MQ-17.101) and compared to rabbit skeletal muscle PAD from Sigma-Aldrich (figure 1). 1,4 μl of recombinant mouse PAD4 contains approximately 12.5mU.

Purity

Recombinant mouse PAD4 comes with a HIS-tag and has been purified using Ni-beads.

Precautions

1. For professional users.
2. As with any product derived from biological sources, proper handling procedures should be used.
3. The Product may be used in different techniques and in combination with different sample types and materials, therefore each individual laboratory should validate the test system applied.

Properties and Storage instructions

Form: buffered aqueous glycerol solution
Shipped in: dry ice
Storage temp.: -80°C

Preparation of the enzym

Before use the enzyme should be diluted at a suitable concentration in deimination buffer (40mM Tris-HCl pH7.5; 5mM CaCl₂; 1mM DTT).

Recommended PAD concentration: 12.5 mU PAD4 in 100ul deimination buffer if used in an ELISA based assay using 96-well plates.

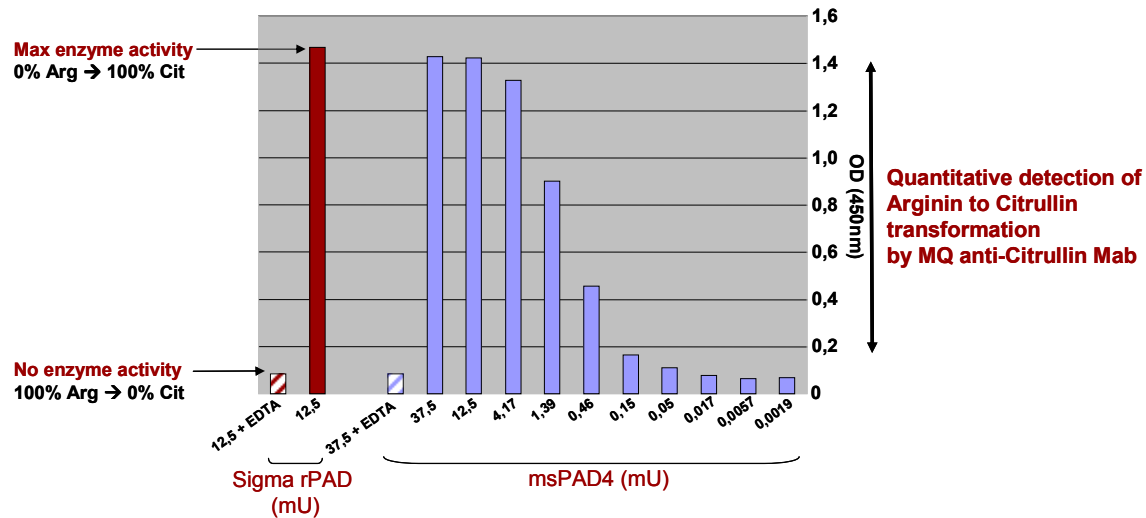


Figure 1: ABAP 96-well strips has been used which are coated with arginine containing peptides. Dilution series were prepared from rec.ms.PAD4. Plates were incubated for 1h and 15 min at 37°C with the enzyme. Deiminated arginines were detected with a proprietary MQR anti-citrulline antibody. EDTA was added in the wells with the highest concentration of enzyme to show its specificity since PAD enzymes are Ca²⁺ dependent. Rabbit skeletal muscle PAD from Sigma-Aldrich (Catalogue no: P1584) has been used at a concentration of 12.5mU/well as a reference which gives maximum deimination.