

## Natural Der p 1 Molecular Reference Standard

**Product Code: MRS-NDP1** 

The Natural Der p 1 MRS is intended to serve as reference standard to determine the Der p 1 content of allergen preparations from house dust mite (*Dermatophagoides pteronyssinus*) by immunoassay.

Allergen: Natural Der p 1 (Dermatophagoides pteronyssinus allergen 1)

Lot No: XXXXX

**Source:** D. pteronyssinus culture

**Mol. Wt**: 24 kD

**Purification:** From spent mite culture by multi-step affinity chromatography.

nDer p 1

Composition: 10µg natural Der p 1, determined by Amino Acid Analysis, freeze dried

in sealed glass vial.

SDS-PAGE: See inset. Silver-stained SDS-PAGE under non-reducing conditions shows a

single band at 24 kD.

**ELISA:** Immunoreactive in Der p 1 specific ELISA. No trace contamination with Der p 2

was detected by ELISA.

**Purity:** >95% purity by in-solution LC-MS/MS after tryptic digest.

Formulation: Prior to lyophilization, natural Der p 1 was adjusted to 50 mM volatile

ammonium bicarbonate with 3% trehalose.

**Isoforms:** The predominant isoforms identified in affinity –purified Der p 1 are Der p

1.0106, Der p 1.0102/0105, and Der p 1.0108/0118.

Storage: Store at -20°C.

For research and commercial use in vitro: not for human in vivo or therapeutic use.

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## Natural Der p 1 Molecular Reference Standard

**Product Code: MRS-NDP1-1** 

## **Reconstitution:**

- Allow vial to reach room temperature before use
- Tap vial gently to collect all material at the bottom
- Using a sterile syringe reconstitute the MRS to desired concentration by injecting a suitable volume of a buffer of choice (e.g. PBS, pH 7.4 or 1% BSA/50% glycerol/PBS, pH 7.4).
- Mix by gently swirling the vial until content is completely dissolved.
- Adding 1ml of buffer will result in a Der p 1 concentration of 10,000ng/ml.







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- 2. Wan H, Winton HL, Soeller C, Tovey ER, Gruenert DC, Thompson PJ, Stewart GA, Taylor GW, Garrod DR, Cannell MD, Robinson C. Der p 1 facilitates transepithelial allergen delivery by disruption of tight junctions. J Clin Invest 1999; 104:123-133.
- 3. Chruszcz M, Chapman MD, Vailes LD, Stura EA, Saint-Remy JM, Minor W, Pomés A. Crystal structures of mite allergens Der f 1 and Der p 1 reveal differences in surface- exposed residues that may influence antibody binding. J Mol Biol. 2009; 386:520-530.
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