

## DERP5 Protein, Dermatophagoides pteronyssinus (His)

<b>Cat. No.:</b>	HY-P77351
<b>Synonyms:</b>	Mite allergen Der p 5; Allergen Der p V; IgE-binding allergen; Der p 5
<b>Species:</b>	Others
<b>Source:</b>	E. coli
<b>Accession:</b>	P14004 (M1-V132)
<b>Gene ID:</b>	113793750
<b>Molecular Weight:</b>	Approximately 15 kDa.

### PROPERTIES

<b>AA Sequence</b>	<p>M K F I I A F F V A    T L A V M T V S G E    D K K H D Y Q N E F    D F L L M E R I H E</p> <p>Q I K K G E L A L F    Y L Q E Q I N H F E    E K P T K E M K D K    I V A E M D T I I A</p> <p>M I D G V R G V L D    R L M Q R K D L D I    F E Q Y N L E M A K    K S G D I L E R D L</p> <p>K K E E A R V K K I    E V</p>
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>The DERP5 protein exhibits a monomeric structure and further forms a trimer of homodimers, oligomerizing in a concentration-dependent manner. Notably, DERP5 is implicated in causing allergic reactions in humans, with common symptoms of mite allergy including bronchial asthma, allergic rhinitis, and conjunctivitis. It binds to IgE in individuals allergic to house dust mite (HDM), as evidenced by various studies. Recombinant DERP5 protein demonstrates IgE binding in a significant percentage of patients tested across different populations. Moreover, skin tests with the recombinant protein result in positive reactions in patients with asthma and allergic rhinitis. Importantly, DERP5 does not exhibit relevant cross-reactivity with the Der p 21 allergen. Additionally, DERP5 induces histamine release from human peripheral blood mononuclear leukocytes and up-regulates the expression of the CD203c activation marker on basophils. These findings</p>
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underscore DERP5's role in allergic responses and its potential significance in understanding and managing mite-induced allergic conditions.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA