

# Allergy Testing

RECOMBINANT ANTIGENS FOR THE DEVELOPMENT OF ALLERGEN-SPECIFIC IgE ANTIBODY TESTS



Recombinant allergens provide new opportunities for the diagnosis of IgE-mediated allergies.



Recombinant antigens are used increasingly over native allergen extracts in the diagnosis of allergies. They are capable of binding IgE antibodies in a comparable way to natural allergens and they demonstrate good reactivity in *in-vitro* diagnostic tests.

**They offer several advantages including:**

**Lot-to-lot consistency:** Recombinant antigens contain a defined amount of specific protein whereas allergen extracts are prone to high variability between lots in terms of the allergens present in the mix and ratio of each allergen

**Defined purity:** Native allergen extracts contain non-allergenic compounds and can contain contaminants from other allergen sources leading to false-positive results

**Increased reproducibility:** Assays based on recombinant allergens allow for the precise analysis of reactivity profiles of allergenic patients

Meridian's panel of recombinant allergens is ideally suited to developing quantitative allergy tests which can determine an individual's specific IgE-profile. These antigens are highly sensitive and specific in contrast to native allergen extracts which when used in diagnostic assays, are not able to distinguish different antibody specificities to components within that extract.



## Product List

All products are suitable for use in ELISA.

### Indoor Allergens:

Unlike seasonal allergies such as hay fever, indoor allergies may last all year long however, they tend to be at their worst in the late summer, when dust mites are at their peak. Sensitivity to indoor allergens is very common and occurs at every age. Typical indoor allergens include dust mites, pet dander, molds and cockroaches.

| Description                                     | Source             | Molecular Weight | Product Code |
|---|--------------------|------------------|--------------|
| <b>Animal Epithelial Recombinant Allergens:</b> |                    |                  |              |
| Cat allergen ( <i>Fel d 1</i> )                 | <i>P. pastoris</i> | 22kDa            | R01747A      |
| Dog allergen ( <i>Can f 5</i> )                 | <i>P. pastoris</i> | 30kDa            | R01748A      |
| Dog allergen ( <i>Can f 1</i> )                 | <i>E. coli</i>     | 25 kDa           | R01750A      |
| Horse allergen ( <i>Equ c 1</i> )               | <i>E. coli</i>     | 27kDa            | R01749A      |
| <b>Dust Mite Recombinant Allergens:</b>         |                    |                  |              |
| Dust Mite ( <i>Der p 10</i> )                   | <i>E. coli</i>     | 39kDa            | R01751A      |
| Dust Mite ( <i>Der f 2</i> )                    | <i>P. pastoris</i> | 17kDa            | R01752A      |

### Outdoor Allergens:

Outdoor allergens are seasonal and are more common during the spring and summer and tend to be worse in warm, dry, and windy weather. The most common sources of outdoor allergens include wind-pollinated plants such as grasses, trees, weeds and molds. The pollens from insect-pollinated plants are too heavy to remain airborne for long, and they are less likely to trigger an allergic reaction such as hay fever.

| Description                            | Source             | Molecular Weight | Product Code |
|--|--------------------|------------------|--------------|
| <i>A. alternata</i> ( <i>Alt a 1</i> ) | <i>E. coli</i>     | 23kDa            | R01753A      |
| Timothy Grass ( <i>Phl p 1</i> )       | <i>E. coli</i>     | 33kDa            | R01754A      |
| Timothy Grass ( <i>Phl p 5a</i> )      | <i>E. coli</i>     | 35kDa            | R01755A      |
| Timothy Grass ( <i>Phl p 5b</i> )      | <i>E. coli</i>     | 33kDa            | R01756A      |
| Timothy Grass ( <i>Phl p 7</i> )       | <i>E. coli</i>     | 15kDa            | R01757A      |
| Timothy Grass ( <i>Phl p 12</i> )      | <i>E. coli</i>     | 21kDa            | R01758A      |
| Plane Tree ( <i>Pla a 1</i> )          | <i>P. pastoris</i> | 21kDa            | R01759A      |
| Plane Tree ( <i>Pla a 3</i> )          | <i>E. coli</i>     | 16kDa            | R01760A      |
| Mugwort ( <i>Art v 1</i> )             | <i>P. pastoris</i> | 13kDa            | R01761A      |
| Mugwort ( <i>Art v 3</i> )             | <i>E. coli</i>     | 16kDa            | R01762A      |