

exbio

A Brighter Future in Flow

New challenges in the diagnostics of allergies?

Special BULK offer for developers of assays for allergen specific diagnostic tests

EXBIO Praha., a.s. is the leading manufacturer of monoclonal antibodies and reagents for research and clinical applications with the focus on multi-color flow cytometry analysis of human cellular markers.

Our vision:
A Brighter Future in Flow

Our commitment to the customer's needs, supported by our integrated quality management system compliant with ISO13485:2016, ISO9001:2015, cGMP (21 CFR part 820), allows us to accomplish our mission:

EXBIO strives to exceed the most demanding customer expectations in the field of analytical cytometry by providing a comprehensive portfolio of high quality products and services at affordable prices.

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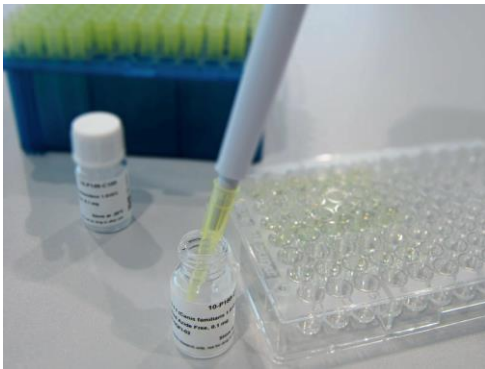


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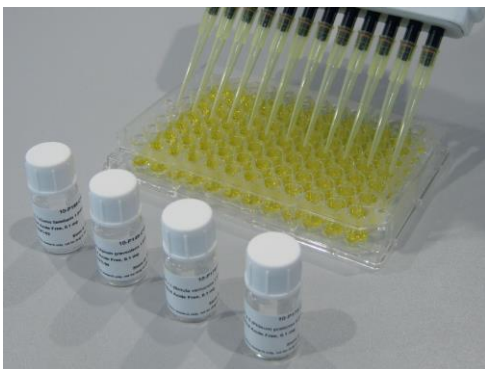
Recombinant allergens

New challenges in the diagnostics of allergies



Allergen sequence selection: AA sequence of all EXBIO allergens were selected accordingly to data presented on the official site for systematic allergen nomenclature (www.allergen.org, approved by WHO/IUIS).

High purity: Advantage of recombinant allergens, compared to allergen extracts, is that they do not contain non-allergenic impurities or contamination by other allergens, which could possibly lead to false-positive results. Recombinant allergens are produced in appropriate expression systems, accordingly to the nature of each particular allergen, followed by at least 2 sequential chromatography purification steps, to ensure high product purity.



Lot-to-lot consistency: Reagent packages of recombinant allergens contain precisely defined amount of specific protein, compared to allergen extracts, which suffer from high variability between lots (this applies particularly for allergens concentration in the mix and their ratio). Lot-to-lot consistency is ensured by outstanding level of product development, manufacture and QC control (ISO 9001:2015 certified Quality Management System).

Intended use: Development of qualitative and quantitative allergy tests and assays for assessment of patients reactivity profiles or follow up of allergic patients during immunotherapy.



Application: Recombinant allergens are intended for ELISA and Flow Cytometry application. Other applications must be verified by the user.

BULK amounts available for the development of allergen specific diagnostic tests.

Recombinant allergens

Animal allergens	Description	Cat. Number
rCan f 1 (Canis familiaris 1.0101)	Recombinant protein rCan f 1 is expressed in Escherichia coli. DNA sequence encoding 169 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 18,8 kDa.	10-P188-C100
rFel d 1 (Felis domesticus 1.0101)	Recombinant protein rFel d 1 is expressed in Escherichia coli. DNA sequence encoding 175 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 19,4 kDa.	10-P189-C100

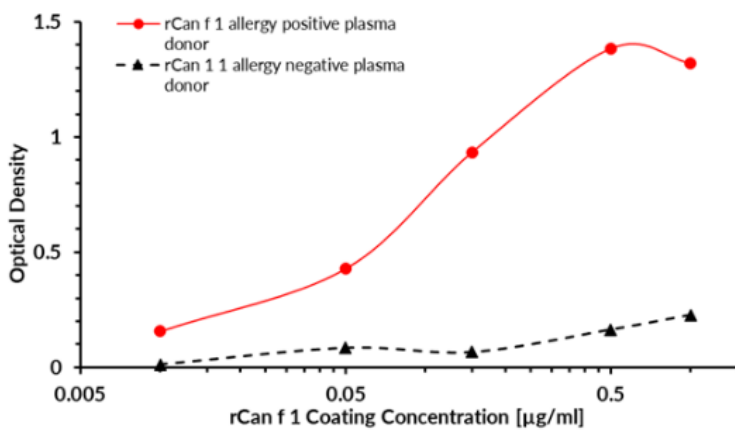
Food allergens	Description	Cat. Number
rApi g 1 (Apium graveolens 1.0101)	Recombinant protein rApi g 1 is expressed in Escherichia coli. DNA sequence encoding 167 AAs was fused with His-tag at the C-terminus. A calculated molecular mass of recombinant protein is 17,9 kDa.	10-P149-C100
rAra h 1 (Arachis hypogaea 1.0101)	Recombinant protein rAra h 1 is expressed in Escherichia coli. DNA sequence encoding 614 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 70,2 kDa.	10-P202-C100
rAra h 8 (Arachis hypogaea 8.0101)	Recombinant protein rAra h 8 is expressed in Escherichia coli. DNA sequence encoding 169 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 18,3 kDa.	10-P210-C100
rDau c 1 (Daucus carota 1.0101)	Recombinant protein rDau c 1 is expressed in Escherichia coli. DNA sequence encoding 167 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 17,5 kDa.	10-P193-C100
rMal d 1 (Malus domestica 1.0101)	Recombinant protein rMal d 1 is expressed in Escherichia coli. DNA sequence encoding 180 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 19,9 kDa.	10-P194-C100

House dust mite allergen	Description	Cat. Number
rDer p 23 (D. pteronyssinus)	Recombinant protein rDer p 23 is expressed in Escherichia coli. DNA sequence encoding 91 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 10,4 kDa.	10-P211-C100

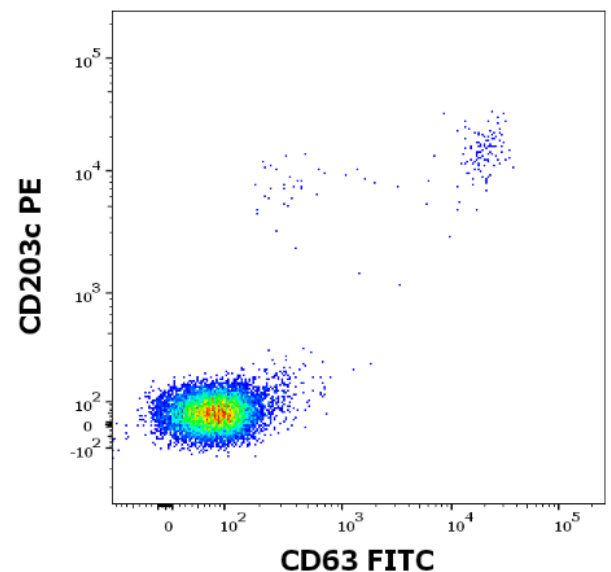
Pollen allergens	Description	Cat. Number
rBet v 1 (Betula verrucosa 1.0101)	Recombinant protein rBet v 1 is expressed in Escherichia coli. DNA sequence encoding 172 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 19 kDa.	10-P174-C100
rBet v 2 (Betula verrucosa 2.0101)	Recombinant protein rBet v 2 is expressed in Escherichia coli. DNA sequence encoding 152 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 16,2 kDa.	10-P177-C100
rBet v 4 (Betula verrucosa 4.0101)	Recombinant protein rBet v 4 is expressed in Escherichia coli. DNA sequence encoding 97 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 10,8 kDa.	10-P203-C100
rBet v 6 (Betula verrucosa 6.0102)	Recombinant protein rBet v 6 is expressed in Escherichia coli. DNA sequence encoding 320 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 35,5 kDa.	10-P204-C100
rBet v 7 (Betula verrucosa 7.0101)	Recombinant protein rBet v 7 is expressed in Escherichia coli. DNA sequence encoding 186 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 19,7 kDa.	10-P205-C100
rCor a 1 (Corylus avellana 1.0401)	Recombinant protein rCor a 1 is expressed in Escherichia coli. DNA sequence encoding 174 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 19,1 kDa.	10-P192-C100
rPhl p 2 (Phleum pratense 2.0101)	Recombinant protein rPhl p 2 is expressed in Escherichia coli. DNA sequence encoding 109 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 12,3 kDa.	10-P206-C100
rPhl p 5 (Phleum pratense 5.0101)	Recombinant protein rPhl p 5 is expressed in Escherichia coli. DNA sequence encoding 300 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 30 kDa.	10-P175-C100
rPhl p 6 (Phleum pratense 6.0101)	Recombinant protein rPhl p 6 is expressed in Escherichia coli. DNA sequence encoding 123 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 13,2 kDa.	10-P207-C100
rPhl p 7 (Phleum pratense 7.0101)	Recombinant protein rPhl p 7 is expressed in Escherichia coli. DNA sequence encoding 90 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 10 kDa.	10-P176-C100
rPhl p 12 (Phleum pratense 12.0101)	Recombinant protein rPhl p 12 is expressed in Escherichia coli. DNA sequence encoding 143 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 15,6 kDa.	10-P225-C100

Mold allergen	Description	Cat. Number
rAlt a 1 (Alternaria alternata 1.0101)	Recombinant protein rAlt a 1 is expressed in Escherichia coli. DNA sequence encoding 152 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 16,7 kDa.	10-P186-C100

Venom allergens	Description	Cat. Number
rVes v 1 (Vespula vulgaris 1.0101)	Recombinant protein rVes v 1 is expressed in S2 cells (Drosophila). DNA sequence encoding 314 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 34,9 kDa.	10-P183-C100
rVes v 2 (Vespula vulgaris 2.0101)	Recombinant protein rVes v 2 is expressed in S2 cells (Drosophila). DNA sequence encoding 345 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 40,44 kDa.	10-P184-C100
rVes v 5 (Vespula vulgaris 5.0101)	Recombinant protein rVes v 5 is expressed in S2 cells (Drosophila). DNA sequence encoding 218 AAs was fused with Strep-tag at the N-terminus. A calculated molecular mass of recombinant protein is 24,9 kDa.	10-P185-C100



ELISA (enzyme-linked immunosorbent assay) test was designed to prove the bond between the coated target recombinant allergen rCan f 1 and allergen-specific human plasma IgG4 antibodies of Canis familiaris positive donor.



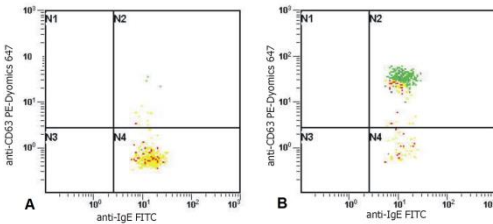
Flow cytometry dot-plot staining pattern of rBet v 1 recombinant allergen stimulated human peripheral whole blood

Anti-human IgE Monoclonal Antibodies

Clone BE5

- **Clone BE5**

The antibody BE5 recognizes an epitope different from the ones recognized by 4G7.325 and 4H10 antibodies to IgE.

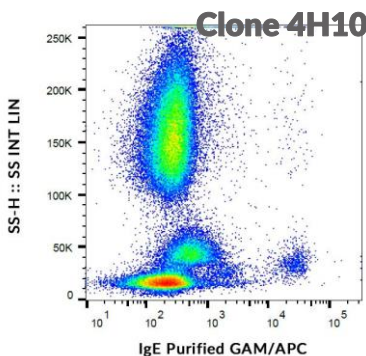


Flow cytometry analysis of basophil activation upon stimulation of normal (heparin-treated) whole blood with combination of IL-3 and Goat anti-IgE polyclonal antibody. Combination of anti-human IgE (BE5) FITC and anti-human CD63 (MEM-259) PE-Dyomics 647 (cat. no. 1Y-343-T100) was used (analysis in basophil window). A - staining of non-stimulated (control) sample 1B - staining of IgE stimulated sample

Catalog No.	Product Name	Quantity	Application
11-324-C100	Anti-Hu IgE Purified	0,1 mg	ELISA, FC
1B-324-C100	Anti-Hu IgE Biotin	0,1 mg	ELISA, FC
1F-324-C100	Anti-Hu IgE FITC	0,1 mg	FC
1P-324-C100	Anti-Hu IgE PE	0,1 mg	FC
T8-324-C100	Anti-Hu IgE PE-Cy5	0,1 mg	FC

- **Clone 4H10**

The antibody 4H10 recognizes an epitope different from the clones BE5 and 4G7.325 and the epitope is located within the amino acids 267-279 (TWLEDGQVMDVDL).



Flow cytometry analysis (surface staining) of IgE on human peripheral blood cells with anti-IgE (4H10) purified, GAM-APC.

Catalog No.	Product Name	Quantity	Application
11-326-C100	Anti-Hu IgE Purified	0,1 mg	ELISA, FC
1F-326-C100	Anti-Hu IgE FITC	0,1 mg	FC

- **Clone 4G7.325**

The antibody 4G7 recognizes an epitope different from the clones BE5 and 4H10 and the epitope is located within the amino acids 103-115 (WSDYNFDYSSSEE).

Catalog No.	Product Name	Quantity	Application
11-325-C100	Anti-Hu IgE Purified	0,1 mg	ELISA

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Bulk amounts available for the development of allergen specific diagnostic tests.

*Unless indicated otherwise, all products are For Research Use Only and not for diagnostic use. In vivo diagnostic or therapeutic applications are strictly forbidden.