

Human IgE

(NON-IMMUNE, LOW ENDOTOXIN)

DIA HE1 IgE



Our unique Human IgE from a monoclonal cell line
will widely contribute to your research and reliable production

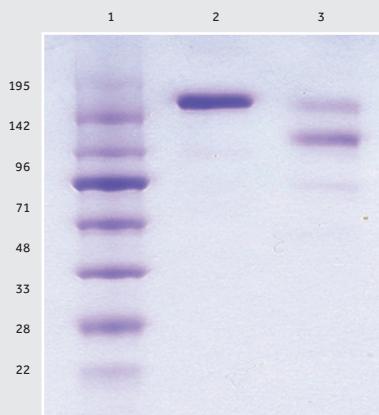
PREPARATION

The human IgE comes from a monoclonal cell line, and is purified by Protein L chromatography, with a purity > 90%, tested by SDS-PAGE.

What is DIA HE1 IgE?

The DIA HE1 IgE is an affinity-purified, fully human IgE antibody with kappa light chains. It is produced in vitro from a monoclonal hybridoma. This unique source guarantees freedom from contamination by other immunoglobulin isotypes. Compared to IgE from a myeloma patient, where batch-to-batch variability may be high, the monoclonal source of IgE ensures very high reproducibility. This human IgE is used widely in the field of allergy research and diagnostic kit manufacturing, mostly as a standard in quantitative IgE assays and for internal control and QC purposes.

SDS-PAGE (16%)



- Lane 1:** Molecular weight markers.
Lane 2: DIA HE1 purified human IgE, 185 kDa.
Lane 3: IgE, Purified from serum from a myeloma patient

DIA HE1 Human IgE PRODUCT SPECIFICATIONS

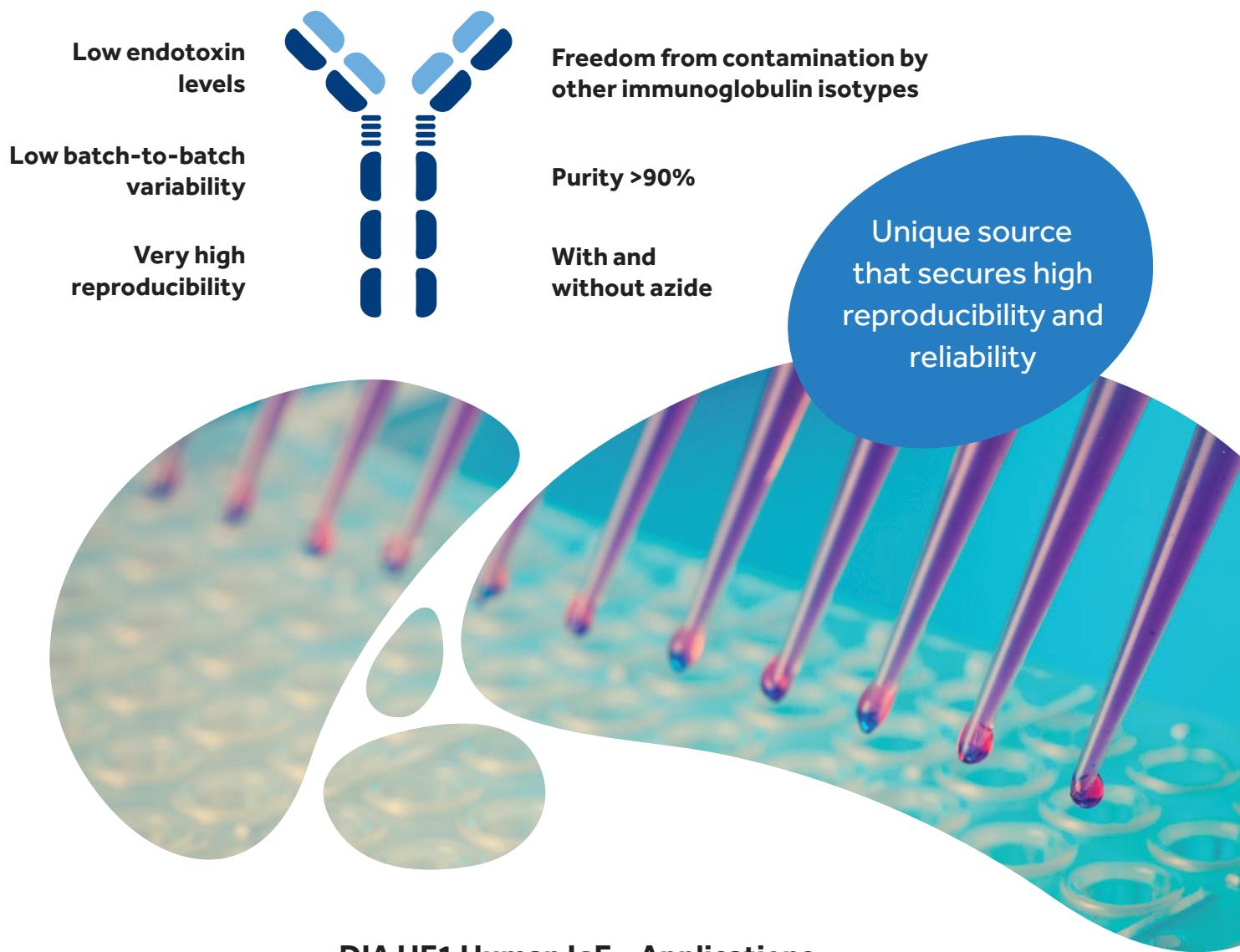
– delivered in 100 µL, 1 mL or in customer tailored volumes

Product. No.	Product description	Availability
DIA HE1	Human IgE (non-immune) (azide-free, low endotoxin)	100 µL, 1 mg/mL 1 mL, 1 mg/mL
DIA HE1A	Human IgE (non-immune)	100 µL, 1 mg/mL 1 mL, 1 mg/mL
DIA HE1B	Human IgE (non-immune), biotinylated	100 µL, 1 mg/mL

Presentation

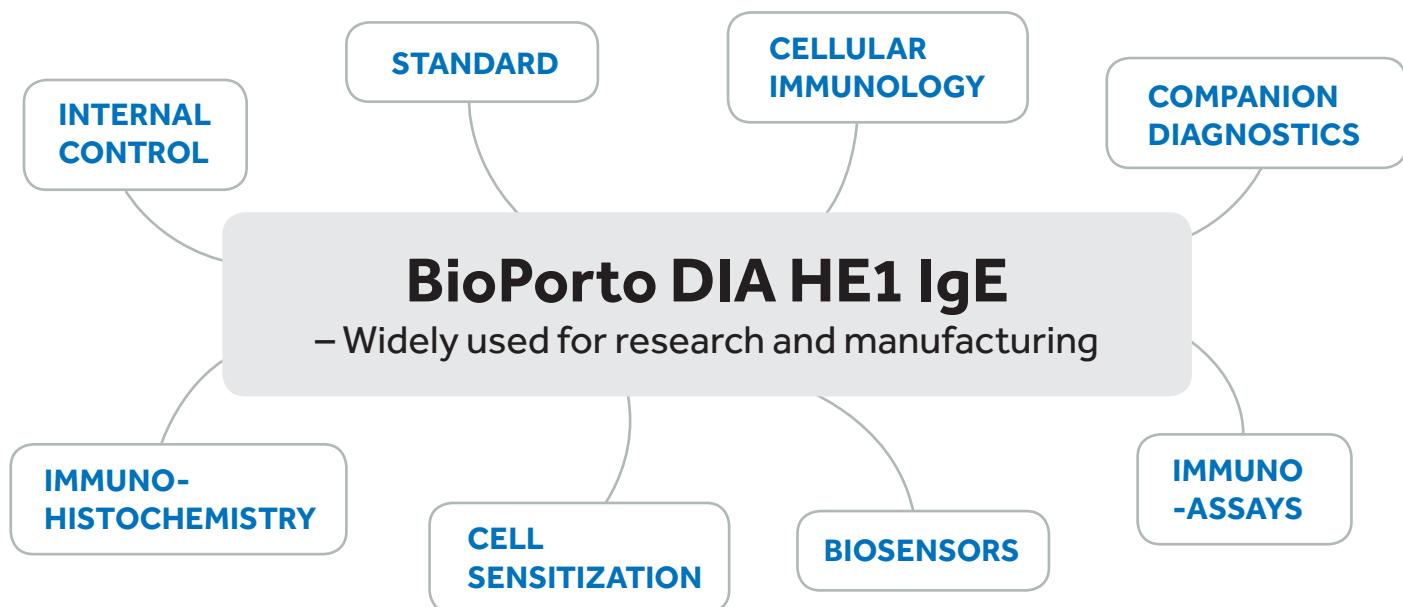
CLONE	HE1
ORIGIN	Monoclonal cell line
SUBCLASS	IgE/k
PRODUCTION	In vitro hollow fibre production system
PREPARATION	Protein L purified
PURITY	>90%
ENDOTOXIN LEVEL	<25 EU/mg – DIA HE1-01 / DIA HE1-1
UNITS	1 mg of DIA HE1 is 380,000 ± 50,000 IU/ml

For in vitro use or further manufacture only.



DIA HE1 Human IgE – Applications

– Numerous applications ensures wide use



Scientific References – DIA HE1 IgE

Scientific references using DIA HE1:

Stimulation of human airway smooth muscle (HASM) cell's with IgE

1. Redhu NS, Shan L, Al-Subait D, Ashdown HL, Movassagh H, Lamkhioued B, Gounni AS (2013) IgE induces proliferation in human airway smooth muscle cells: role of MAPK and STAT3 pathways. *Allergy, Asthma & Clinical Immunology*. 9:41. [24499258](#) [Pubmed](#)
2. Jyoti Balhara (2012) Role of IgE in modulating the expression and function of smMLCK in human airway smooth muscle cells. A thesis submitted to the Faculty of Graduate Studies of The University of Manitoba.

Stimulation of mast cells (MC) with IgE

3. Nunomura S, Shimada S, Kometani Y, Yamada Y, Yoshioka M, Suemizu H, Ozawa M, Itoh T, Kono A, Suzuki R, Tani K, Ando K, Yagita H, Ra C, Habu S, Satake M, Sasaki E (2012) Double expression of CD34 and CD117 on bone marrow progenitors is a hallmark of the development of functional mast cell of Callithrix jacchus (common marmoset). *International Immunology* 24:593–603. [22836021](#) [Pubmed](#)

Stimulation of human bronchial/tracheal smooth muscle (B/TSM) cells with IgE

4. Redhu NS, Saleh A, Shan L, Gerthoffer WT, Kung SK, Halayko AJ, Lamkhioued B, Gounni AS (2009) Proinflammatory and Th2 Cytokines Regulate the High Affinity IgE Receptor (FcεRI) and IgE-Dependant Activation of Human Airway Smooth Muscle Cells. *PLoS ONE* 4:e6153. [19582151](#) [Pubmed](#)

Stimulation of acute myelogenous leukemia (AML) blasts

5. Bruserud Ř, Gjertsen BT, Ulvestad E (2002) Expression of Fc(epsilon)-receptors by human acute myelogenous leukemia (AML) blasts: studies of high- and low- (CD23) affinity receptor expression and the effects of IgE-mediated receptor ligation on functional AML blast characteristics. *Leukemia Res* 26:515–21. [11916528](#) [Pubmed](#)



Stimulation of neutrophils

6. Saffar AS, Alphonse MP, Shan L, HayGlass KT, Simons FER, Gounni AS (2007) IgE modulates neutrophil survival in asthma: Role of mitochondrial pathway. *J immunol* 178:2535–2541. [17277162](#) [Pubmed](#)

Investigation of Aspergillus oryzae involvement in allergic bronchopulmonary aspergillosis (ABPA)

7. Investigation of Aspergillus oryzae involvement in allergic bronchopulmonary aspergillosis (ABPA). [21790704](#) [Pubmed](#)

Used as a control for IgE in skin graft on mice

8. Fairley JA, Burnett CT, Fu CL, Larson DL, Fleming MG, Giudice GJ (2007) A pathogenic role for IgE in autoimmunity: Bullous pemphigoid IgE reproduces the early phase of lesion development in human skin grafted to nu/nu mice. *J Invest Dermatol* 127:2605–2611. [17611576](#) [Pubmed](#)

IgE used as a positive control in microarray technology

9. Nahtman T, Jernberg A, Mahdavifar A, Zerweck J, Schutkowski M, Maeurer M, Reilly M (2007) Validation of peptide epitope microarray experiments and extraction of quality data. *J Immunol Methods* 328:1–13. [17765917](#) [Pubmed](#)

IgE used in biosensor research

10. Chang C-C, Chen C-Y, Zhao X, Wu T-H, Wei S-C, Lin C-W (2014) Label-free colorimetric aptasensor for IgE using DNA pseudoknot probe. *Analyst* 139:3347–3351. [24821053](#) [Pubmed](#)
11. Šnejdarkova M, Svobodova L, Polohova V, Hianik T (2007) The study of surface properties of an IgE-sensitive aptasensor using an acoustic method. *Anal Bioanal Chem* 290:1087–1091. [18049813](#) [Pubmed](#)
12. Papamichael KI, Kreuzer MP, Guilbault GG (2007) Viability of allergy (IgE) detection using an alternative aptamer receptor and electrochemical means. *Sensor Actuat B-Chem* 121:178–186.