

**International Blood Group
Reference Laboratory**

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BS34 7QH

Antigen Human Blood Group Rh E (ISBT No. 4003) / CD 240CE**Clone** COE**Product Code** 9424**Immunoglobulin Class** Human IgM, lamda light chain**Protein Development
and Production Unit****Tel:** +44 (0)117 921 7500**Fax:** +44 (0)117 912 5796**Website:** <http://ibgri.blood.co.uk>**Email:** enquiries.IBGRL@nhsbt.nhs.uk**Antigen Description and Distribution**

Rh is the most complex of the human blood group systems, with 45 well-defined antigens. Rh E (Rh 3 or rh³) is an antigen of the Rh blood group system. The Rh antigens are carried on a number of closely related polypeptides of around Mr 30 000^{1,2}. Estimated numbers of E sites on red cells range from 27,500 on CDE/cDE to 17,900 on cDE/cde³. 30% of Caucasians are Rh E+ with frequencies of 0.1411 for cDE (R₂) and 0.0119 for cdE (r³) Rh haplotypes^{3,4}.

Clone

COE is a heterohybridoma made by EBV transformation of human peripheral B lymphocytes and fusion of the resulting cell line with a mouse myeloma cell line X63-Ag8.653. COE is a direct agglutinin with red cells of all Rh phenotypes possessing the E antigen. COE was submitted to the third international workshop on monoclonal antibodies against human red cells, Nantes 1996⁵.

References

1. Avent ND *et al* (1990) *Biochem. J.* **271** 821-825.
2. Agre P, Cartron JP (1991) *Blood* **78** 551-563 (review).
3. Issitt PD, Anstee DJ (1998) *Applied blood group serology*. 4th edn. Montgomery Scientific Publications, Durham, NC.
4. Mollison PL, Engelfriet CP, Contreras M. (1997) *Blood Transfusion in clinical medicine*. 10th edn. Blackwell Science, Oxford.
5. Rouger P Muller JY (eds) (1997) *Proceedings of the third International workshop and symposium on monoclonal antibodies against human red cells and related antigens*, Nantes 1996.