

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived
Glu19-Glu569, with a C-terminal 10-His tag
Accession # NP_110414

N-terminal Sequence Analysis Glu19

Predicted Molecular Mass 64 kDa

SPECIFICATIONS

SDS-PAGE 73 kDa, reducing conditions

Activity Measured by its ability to inhibit the binding of biotinylated Recombinant Human Complement Factor H-related 5/CFHR5 to immobilized Recombinant Human C-Reactive Protein/CRP (Catalog # 1707-CR). McRae, J.L. *et al.* (2005) *J. Immunol.* **174**:6250.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in Tris and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The human complement factor H protein family consists of the complement and immune regulators factor H, the factor H-like protein 1 (FHL-1) and five factor H-related proteins (FHR-1 to -5) (2). Members of this family are exclusively composed of individually folded protein domains, termed short consensus repeats (SCRs) or complement control modules. The genes of this family have been located in human chromosome 1q32, which is known as the regulator of complement activation (RCA) gene clusters (3). FHR-5 has been identified initially as a universal component of complement deposits (1), and detected in glomerular immune deposits (4). The pattern of deposits is similar to other complement components, suggesting that FHR-5 may play a role in complement activation and regulation. It is synthesized in the liver and consists of 9 SCRs. Its biological function is not understood fully. FHR-5 exhibits similar characteristics as those of factor H in heparin binding, CRP binding, and lipoprotein association (5). Weak factor I-dependent cofactor activity for C3b cleavage has also been observed (5).

References:

1. McRae, J. L. *et al.* (2001) *J. Biol. Chem.* **276**:6747.
2. Zipfel, P. F. *et al.* (2002) *Biochem. Soc. Trans.* **30**:971.
3. McRae, J. L. *et al.* (2002) *Genetica.* **114**:157.
4. Murphy, B. *et al.* (2002) *Am. J. Kidney. Dis.* **39**:24.
5. McRae, J. L. *et al.* (2005) *J. Immunol.* **174**:6250.