

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human α 1-Microglobulin in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant rat α 1-Microglobulin is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 784917
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human α 1-Microglobulin Gly20-Val203 Accession # P02760
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Human α 1-Microglobulin (alpha1-m/A1M; also protein HC) is a secreted, 31-32 kDa glycoprotein member of the lipocalin family, calycin superfamily of molecules. It is expressed by hepatocytes, keratinocytes, and endodermal derivatives in the embryo. α 1-Microglobulin appears to act as a heme scavenger, protecting cells and collagen against oxidative damage. It also acts as an immunosuppressant, inhibiting polyclonal lymphocyte activation and dampening granulocyte migration in response to chemokines. α 1-Microglobulin circulates either as a monomer, or bound to IgA, albumin or prothrombin. Human α 1-Microglobulin is generated through cleavage of a precursor molecule termed AMBP. This AMBP should not be confused with AMBP-1, a 120-140 kDa adrenomedullin-binding protein that is also known as Complement Factor H. The AMBP precursor contains a 19 aa signal sequence, an N-terminal 183 aa α 1-Microglobulin protein (aa 20-203), and a C-terminal serine protease inhibitor termed bikunin (aa 206-352). α 1-Microglobulin possesses one lipocalin domain (aa 42-186). Although cleavage of AMBP in the Golgi apparatus typically generates a 31 kDa α 1-Microglobulin and 28 kDa bikunin molecule, the 60-65 kDa AMBP precursor can also be released intact. α 1-Microglobulin will undergo extracellular processing, generating a 30 kDa isoform that is missing aa 199-203. There is one splice variant that shows a deletion of aa 48-57. Over aa 20-203, human α 1-Microglobulin shares 76% aa sequence identity with both mouse and rat α 1-Microglobulin.

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