

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human $\alpha$ 1-Microglobulin in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant rat $\alpha$ 1-Microglobulin is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 784917
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human $\alpha$ 1-Microglobulin Gly20-Val203 Accession # P02760
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	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.

<b>Western Blot</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunocytochemistry</b>	Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

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

#### BACKGROUND

Human  $\alpha$ 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.  $\alpha$ 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.  $\alpha$ 1-Microglobulin circulates either as a monomer, or bound to IgA, albumin or prothrombin. Human  $\alpha$ 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  $\alpha$ 1-Microglobulin protein (aa 20-203), and a C-terminal serine protease inhibitor termed bikunin (aa 206-352).  $\alpha$ 1-Microglobulin possesses one lipocalin domain (aa 42-186). Although cleavage of AMBP in the Golgi apparatus typically generates a 31 kDa  $\alpha$ 1-Microglobulin and 28 kDa bikunin molecule, the 60-65 kDa AMBP precursor can also be released intact.  $\alpha$ 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  $\alpha$ 1-Microglobulin shares 76% aa sequence identity with both mouse and rat  $\alpha$ 1-Microglobulin.

#### PRODUCT SPECIFIC NOTICES

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