

**DESCRIPTION**

<b>Source</b>	Human embryonic kidney cell, HEK293-derived human Myocilin protein Leu215-Met504, with a C-terminal 6-His tag
<b>N-terminal Sequence Analysis</b>	Leu215
<b>Predicted Molecular Mass</b>	34 kDa

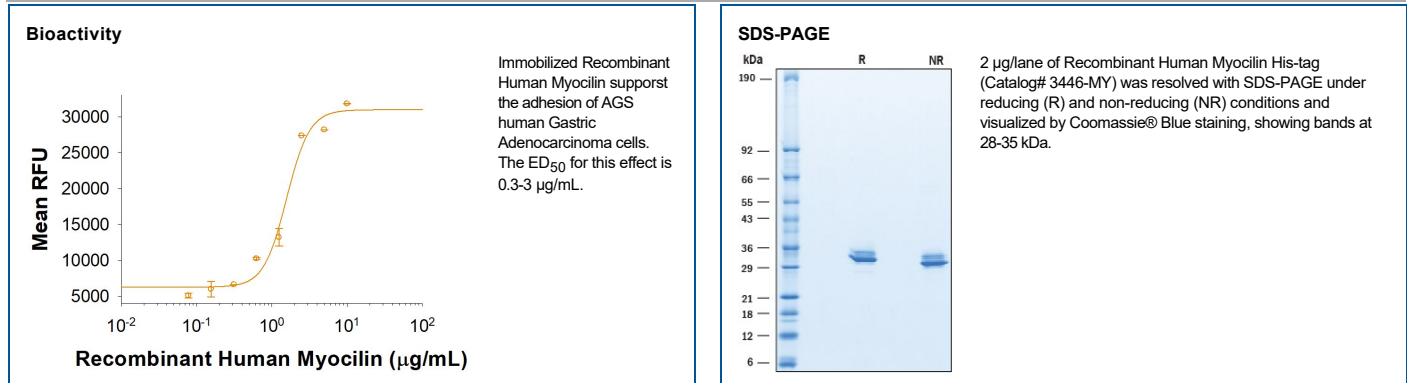
**SPECIFICATIONS**

<b>SDS-PAGE</b>	28-35 kDa, reducing conditions
<b>Activity</b>	Measured by the ability of the immobilized protein to support the adhesion of AGS human Gastric Adenocarcinoma cells. The ED <sub>50</sub> for this effect is 0.3-3 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 500 µg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**BACKGROUND**

Myocilin is a secreted glycoprotein that belongs to the family of olfactomedin-related proteins (1). Mature human Myocilin is synthesized as a 472 amino acid (aa) precursor that can be cleaved into a 194 aa N-terminal fragment containing leucine zipper motifs within two coil-coil domains and a 335 aa C-terminal fragment containing an olfactomedin (OLF) domain (2). The human OLF-domain shares 87% aa sequence identity with the OLF-domain in mouse and rat. The Myocilin gene is expressed in the human eye compartments. When it is secreted, it can be detected in the cornea, trabecular meshwork, aqueous humor, iris, ciliary body, choroid sclera, retina and the axons of optic nerve ganglion cells (3). Mutations of the MYOC gene are associated with primary open angle glaucoma (POAG), which is a complex disorder with a major heritable component (4). Myocilin interacts with itself to form dimers or multimers (2, 5-8), flotilin-1, optomedin, fibronectin, and fibrillin-1 as well as hevin and SPARC (2, 8-10). Myocilin stimulates cell migration that involves the activation of integrin focal adhesion kinase (FAK)-serin/threonine kinase (AKT) signaling pathway (11). Myocilin binds specifically to the Heparin II domain of fibronectin (12).

**References:**

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