

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Pro-HGF Activator in Western blots. In Western blots, only the HGFA precursor is recognized. In Western blots, no cross-reactivity with the active form of recombinant mouse HGFA, recombinant human (rh) HGFA, or rhKallikreins 3, 5, and 11 is
Source	Monoclonal Rat IgG _{2A} Clone # 198811
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse Pro-HGF Activator Gln35-Ser653 (predicted) Accession # Q9R098
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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.

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

Pro-HGF-A (Hepatocyte growth factor activator protein) is a 96 kDa member of the PA-FXII-HGFA family of enzymes. It is secreted by hepatocytes and is found in plasma at approximately 40 nM concentration. Other cells selectively reported to express HGF-A include astrocytes, endothelium, fibroblasts and macrophages. Upon activation, HGF-A is known to activate both proHGF and proMSP via proteolytic cleavage. The circulating 96 kDa form of mouse HGF-A represents an inactive 619 amino acid (aa) proform (aa 35-653). Within this proform exists one FN type II domain (aa 100-147), an EGF-like domain (aa 157-195), an FN type III domain (aa 197-237), a second EGF-like domain (aa 238-276), a kringle domain (aa 283-364) and a functional peptidase S1 domain (aa 406-644). Activation of HGF-A typically occurs with a thrombin-mediated cleavage between Arg405-Ile406 and a KLK cleavage between Arg369-Val370. This creates a 34 kDa heterodimeric active product that contains a 2 kDa N-terminus (aa 370-405) disulfide linked to a 32 kDa C-terminus (aa 406-653). Once activated, the 34 kDa heterodimer binds to cell surface HAI-1, rendering it unavailable to circulating HGF. When needed, this HGF-A:HAI-1 complex is released, HGF-A dissociates from HAI-1, and HGF-A is free to activate proHGF. Over aa 35-653, mouse HGF-A shares 92% and 82% aa identity with rat and human HGF-A, respectively.

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