

DESCRIPTION

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| 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 observed. |
| 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 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

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.

| | Recommended Concentration | Sample |
|---------------------|----------------------------------|---|
| Western Blot | 1 µg/mL | Recombinant Mouse HGF Activator (Catalog # 1200-SE) |

PREPARATION AND STORAGE

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| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

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.