Product Information Sheet

Product Name: Mouse MMP-9 (Recombinant, Catalytic Domain)

Catalog Number: AS-55884-1

Size: 1 μg

Activity: Provided on the label

Unit Definition: One unit of MMP-9 hydrolyzes 1 picomole of QXL® 520-γ-Abu-P-Cha-Abu-Smc-HA-Dab(5'-FAM) - AK–NH₂ (AnaSpec Cat.#AS-60581-01) per minute at pH 7.4 at 25° C.

Supplied enzyme does not require pre-activation.

Purity: Greater than 95% as determined by SDS-PAGE.

Storage: Store at -80 ºC. Avoid repeated freeze-thaw cycles.

Instructions:

Matrix metalloproteinases (MMPs) belong to a family of secreted or membrane-associated zinc endopeptidases capable of digesting extracellular matrix components (1,2). MMP-9 (92-kDa gelatinase, collagenase-IV) is involved in a number of diseases such as cancer, angiogenesis, alopecia, and metastasis (3,4). MMP-9 is secreted as zymogen with prodomain, gelatin-binding domain consisting of three contiguous fibronectin type II units, catalytic domain, proline-rich linker region, and C-terminal hemopexin-like domain. It can degrade a variety of substrates, including gelatin, collagens type IV, V, XIV, a2-macroglobulin, elastin, vitronectin, and proteoglycans (1-4).

Recombinant mouse MMP-9 enzyme was expressed as catalytic domain (aa 112-445) along with 6-his tag in E. coli. The recombinant mouse MMP-9 was purified from bacterial lysate and refolded using proprietary technique. The molecular weight of the recombinant Mouse MMP-9 Catalytic Domain is 40 kDa. Its activity can be measured in FRET-based enzymatic assays (AnaSpec Cat.# AS-71134, AS-71155). 10-20 ng of the enzyme is sufficient for FRET-based assay.

MMP-9 is stored in 300 mM NaCl, 50 mM Tris-HCl, 5 mM CaCl₂, 20 μM ZnCl₂, pH=7.5.

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References: