CREATIVE BIOMART®
Assay Kit

Aminopeptidase N (APN/CD13) Activity Assay Kit (Fluorometric)

Product Information

Cat

Kit-1079

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Description

Aminopeptidase N (APN, EC 3.4.11.2) also known as CD13 or membrane alanyl aminopeptidase is a Zn2+-dependent ectopeptidase that cleaves N-terminal neutral amino acids (preferentially alanine) from proteins and peptides. APN is a promiscuous, multifunction enzyme consisting of a short cytoplasmic domain, a single transmembrane helix and a large extracellular catalytic domain that can be cleaved to generate a soluble version of the enzyme. Aminopeptidase N expression is upregulated in many different human cancers and the enzyme is involved in metastatic tumor cell proliferation, invasion and angiogenesis. Serum levels of soluble APN are elevated in cancer patientscompared with healthy controls and there is a strong inverse correlation between serum APN, tumor load and long-term prognosis in pancreatic, breast and colon cancers. Thus, in addition to being a promising pharmacological target for novel anti-neoplastic drugs, serum APN activity has been proposed as a non-invasive biomarker for the diagnosis and surveillance of breast and pancreatic cancers. Aminopeptidase N Activity Assay Kit enables rapid measurement of APN activity, utilizing a fluorogenic substrate that is converted into a highly fluorescent product (Ex/Em = 384/502 nm). A selective APN inhibitor is provided for verification of specific activity. The assay is simple, high-throughput adaptable and can detect a minimum of 100 μU APN activity in a variety of biological samples.

Applications

Detection of CD13 activity in mammalian tissues, cell culture and purified enzyme

Storage

-20°C

Shipping

Gel Pack

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Size
100 assays
Kit Components
Aminopeptidase Assay Buffer; AFC Standard (1 mM); Aminopeptidase N Inhibitor (t-BPAPP); Aminopeptidase N Substrate; Aminopeptidase N Positive Control
Target Species
Mammalian
Detection method Fluorometric (Ex/Em = 384/502 nm)
Features & Benefits
Simple one-step reaction; Takes only 1-2 hrs; Non-radiometric fluorescent detection; HTP adaptable

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