

PCSK9-BIRC2 in vitro Binding Assay Kit

Cat. No. Kit-0665 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

PCSK9-BIRC2 in vitro Binding Assay Kit is used for characterizing and inhibitor screening of PCSK9-BIRC2 interaction in vitro.

Description

PCSK9 (also known as neural apoptosis-regulation convertase, NARC-1) is a 692-residue extracellular protein expressed primarily in the kidneys, liver and intestines representing the 9th member of the secretory subtilase family. Various genetic observations subsequently mapped PCSK9 as the third gene (along with LDLR and APOB) to cause autosomal dominant hypercholesterolemia (ADH). These studies suggested that gain of function mutations increase plasma levels of LDL-c, whereas nonsense or missense (loss-of-function) mutations, which interfere with folding or secretion of coronary heart disease (CHD). In mice, adenoviral overexpression of PCSK9 results in increased plasma LDL-c level in normal mice but not in LDLR-deficient mice. Deletion of PCSK9 causes an increase in level of LDLR protein but not mRNA. These findings lead to a hypothesis that PCSK9 exerts its role in cholesterol metabolism through posttranslational down-regulation of LDLR, the receptor responsible for clearing LDL-c from plasma.

Applications

1. Screening inhibitors of PCSK9-eIAP1 interaction in vitro. 2. Characterization of inhibitor candidates of PCSK9-clAP1 interaction in vitro. 3. Screening monoclonal antibody that inhibits PCSK9-clAP1 interaction in vitro. 4. Characterization of PCSK9-clAP1 interaction in vitro

Target Species

Human

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Usage	For research use only (RUO)
Storage	Upon receipt store all components at 4°C. Do not expose reagents to excessive light.
Kit Components	Microplate: Ready to use in a foil, zip-lock bag with a desiccant pack. Wells are coated with recombinant human cIAP1. 96 (12 x 8) wells Recombinant His-tagged PCSK9 wild type: Lyophilized recombinant His-tagged PCSK9 wild type. 2.4 g 150X HRP-conjugated anti-His-tag monoclonal antibody: HRP-conjugated anti-His-tag monoclonal antibody (150x). For long term storage, 150X HRP-conjugated anti-His-tag monoclonal antibody solution can be stored in small aliquots (e.g. 20 µl) at below -70°C to avoid repeated freezing and thawing. 100 mL Reaction Buffer: 1X buffer used for binding reaction and dilution of Recombinant His-tagged PCSK9 wild type. Ready to use. 50 mL Conjugate Dilution Buffer: 1X buffer, used for dilution of HRP-conjugated anti-His-tag monoclonal antibody. Ready to use. 15 mL 10X Wash Buffer: 10X Buffer containing 2% Tween-20 100 mL Substrate Reagent: Chromogenic substrate, tetra methylbenzidine (TMB). Ready to use. 20 mL Stop Solution: 1 N H₂SO₄. Ready to use. 20 mL