

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Kallikrein 4/Protease/EMSP1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Kallikrein 1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, rhKallikrein B1, rhFac
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 325712
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Kallikrein 4/Protease/EMSP1 Ser27-Ser254 Accession # NP_004908
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	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.

<b>Neutralization</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Western Blot</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunohistochemistry</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunoprecipitation</b>	Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

Kallikrein 4 (KLK4), also known as prostase or EMSP1 (enamel matrix serine protease 1), is a serine protease of the human tissue kallikrein gene family (1). Among normal tissues, human KLK4 is specifically expressed in the prostate (2). It is over-expressed in prostate cancer and this expression is regulated by hormones including androgens, estrogen and progesterone (3). Recombinant human KLK4 readily activates pro-KLK3/PSA and pro-urokinase type plasminogen activator (uPA), indicating it may initiate events involving PSA and uPA in either normal or abnormal processes (4). KLK4 may have additional roles such as functioning as one of the two major enamel proteases identified that process enamel matrix proteins (5). In addition to being a secreted enzyme, it is also a nuclear protein (3, 6). The deduced amino acid sequence of human KLK4 consists of a signal peptide, a short pro region and a mature/active enzyme.

#### PRODUCT SPECIFIC NOTICES

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