

# Product Datasheet

## NFkB Secreted Alkaline Phosphatase Reporter Assay Kit (Colorimetric) NBP2-25286

Unit Size: 1 Kit

Storage of components varies. See protocol for specific instructions.

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**NBP2-25286****NFkB Secreted Alkaline Phosphatase Reporter Assay Kit (Colorimetric)****Product Information**

<b>Unit Size</b>	1 Kit
<b>Concentration</b>	Concentration is not relevant for this product. Please see the protocols for proper use of this product.
<b>Storage</b>	Storage of components varies. See protocol for specific instructions.

**Product Description**

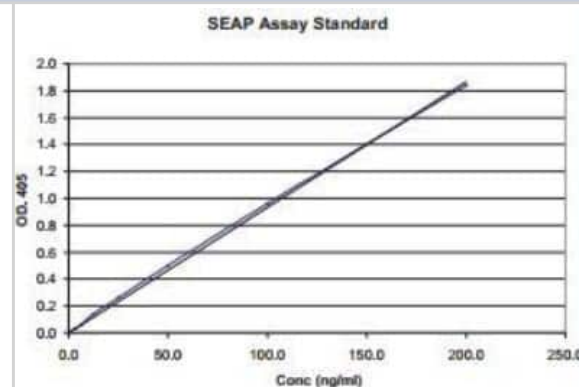
<b>Description</b>	<p>SEAP is secreted into the media so no cell lysis is required for the detection of its enzymatic activity.</p> <p>A secreted indicator function permits multiple kinetics experiments using only one culture through sequential sampling of the medium, and also allows the cells to be used for other purposes, such as RNA extraction, Western blot analysis, and other assays</p> <p>SEAP is stable in serum, allowing it to be used as a reporter assay in vivo.</p> <p>SEAP catalyzes the hydrolysis of pNitrophenyl phosphate (PNPP) producing a yellow product that can be read in a spectrophotometer or ELISA reader at 405 nm.</p>
<b>Species</b>	Human
<b>Kit Components</b>	SEAP Standard (200 ug/mL), PNPP Substrate (8 x 5 mg), pNF-kappa B/SEAP plasmid at 0.5 ug/uL (2 x 10 ug), pCMV/SEAP plasmid at 0.5 ug/uL (2 x 10 ug), 10X Sample Dilution Buffer (10 mL), 10X PNPP Buffer (4 mL), 96-well Microplate (4 EA), Microplate seal (4 EA)

**Product Application Details**

<b>Applications</b>	Enzyme Activity
<b>Recommended Dilutions</b>	Enzyme Activity

**Images**

Enzyme Activity: NFkB Secreted Alkaline Phosphatase Reporter Assay Kit (Colorimetric) [NBP2-25286] - Standard curve for the SEAP protein provided in the NF-KB SEAPorter(TM) Assay Kit. A serial dilution of SEAP protein was added to a 96-well microtiter plate and the standard curve was generated according to the Kit assay protocol.



## Publications

Marwarha G, Slagsvold KH, Høydal MA NF- $\kappa$ B Transcriptional Activity Indispensably Mediates Hypoxia-Reoxygenation Stress-Induced microRNA-210 Expression International journal of molecular sciences 2023-04-01 [PMID: 37047592]

Rajasekaran V. Tissue Transglutaminase (TG2) is a potential therapeutic target in the treatment of chemoresistant breast cancer. Breast Cancer Res 2012-01-10 [PMID: 22225906]

Wang RW A Mechanistic Evaluation of the Role of Aneuploidy During Oncogenesis Thesis 2022-01-01

Wang RW, ViganO S, Ben-David U et al. Aneuploid senescent cells activate NF-kappa B to promote their immune clearance by NK cells EMBO reports 2021-06-08 [PMID: 34105235]

Lai L, Yang G, Yao X et al. NLRC4 Mutation in flagellin-derived peptide CBLB502 ligand-binding domain reduces the inflammatory response but not radioprotective activity J. Radiat. Res. 2019-10-10 [PMID: 31599956] (Human)

Manzo Emiliano, Cutignano Adele, Pagano Dario et al. A new marine-derived sulfoglycolipid triggers dendritic cell activation and immune adjuvant response. Scientific Reports 2017-01-01 [PMID: 28740080]

Fereig RM, Abdelbaky HH, Kuroda Y, Nishikawa Y. Critical role of TLR2 in triggering protective immunity with cyclophilin entrapped in oligomannose-coated liposomes against Neospora caninum infection in mice Vaccine 2019-02-08 [PMID: 30660401] (Mouse)

Toshimitsu T, Ozaki S, Mochizuki J et al. Effects of Lactobacillus plantarum OLL2712 culture conditions on the anti-inflammatory activity for murine immune cells and obese and type 2 diabetic mice Appl. Environ. Microbiol. 2017-01-13 [PMID: 28087537]

O'Neill S, Humphries D, Tse G et al. Heat shock protein 90 inhibition abrogates TLR4-mediated NF-kB activity and reduces renal ischemia-reperfusion injury. Sci Rep. 2015-08-07 [PMID: 26248657] (ELISA)

Chen J, Ng MM, Chu JJ. Activation of TLR2 and TLR6 by Dengue NS1 Protein and Its Implications in the Immunopathogenesis of Dengue Virus Infection. PLoS Pathog. 2015-07-01 [PMID: 26226614] (ELISA)

### Details:

MALP-2, TLR6 and TLR2 ligand was used at 50 ng/ml concentration (alongwith mock or Dengue Virus DV2-infection and LPS ) for treatments of human PBMCs, HEK293 and wild-type or TLR6-/- murine peritoneal macrophages under various experimental conditions.

Hayashi T, Yao S, Crain B et al. Induction of Tolerogenic Dendritic Cells by a PEGylated TLR7 Ligand for Treatment of Type 1 Diabetes PLoS ONE. 2015-06-16 [PMID: 26076454] (ELISA, Human)

McKim JM, Wilga PC, Pregoner JF, Blakemore WR. The common food additive carrageenan is not a ligand for toll-like- receptor 4 (TLR4) in an HEK293-TLR4 reporter cell-line model Food Chem. Toxicol. 2015-01-29 [PMID: 25640528] (ELISA)

### Details:

Human TLR4/MD-2/CD14 SEAP - (SEAPorterTM) Stable Reporter Cell Line [HEK293 cells stably transfected with a TLR4/MD-2/CD14/NF-kB/SEAP reporter construct - expresses full-length human TLR4, MD-2, CD14, and secreted alkaline phosphatase/SEAP under the control of an NFkB response element] used for evaluating the ability of different types of Carrageenan/CGN to bind and activate TLR4 signaling. SEAP was measured as an indicator of TLR4 activation with SEAPorterTM assay kit and CGN was found to not to activate the TLR4.

More publications at <http://www.novusbio.com/NBP2-25286>



## Procedures

### MSDS (NBP2-25286)

NFkB Secreted Alkaline Phosphatase Reporter Assay Kit (Colorimetric):

Product and Contents

Product Name Nf-kB SEAPorter Assay Kit, SEAPorter Assay Kit

Catalog No. NBP2-25286

Contents p-Nitrophenyl Phosphate (KC-103), Secreted Placental Alkaline Phosphatase (IMK-515-1), SEAP Plasmids (IMK-515-3, IMK-515-4), Sodium Azide (Sample Dilution Buffer, IMK-515-6)

CAS#: 33013-2 (pNPP, KC-103)

CAS#: None (SEAP, IMK-515-1)

CAS#: None (SEAP Plasmids IMK-515-3, IMK515-4)

CAS# 26628-22-8 (10X Sample Dilution Buffer with 0.05% Sodium Azide, IMK-515-6)

p-Nitrophenyl Phosphate (pNPP) KC-103

#### Hazardous Information

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be harmful if absorbed through skin.

Ingestion: May be harmful if swallowed. Call a physician

Inhalation: May causes respiratory tract irritation. May be harmful if inhaled.

Symptoms of Exposure: Irritation

#### Handling

Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

#### Storage

Store at -20 degrees C. Store in a tightly closed container. Light and moisture sensitive. Stable under recommended storage conditions

#### Personal Protection

Wear appropriate protective clothing. Protect the skin by handling with gloves. Protect eyes by wearing face shield and safety glasses. Wash hands immediately before and after use.

#### First Aid Measure

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician.

Skin: Flush skin with excess amounts of water for at least 15 minutes. Consult a physician

Ingestion: Toxic material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. SPEED IS ESSENTIAL, OBTAIN MEDICAL AID IMMEDIATELY. Do not use mouth-to-mouth resuscitation if victim ingested or enhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes: Consult a physician. Show this safety data sheet to the physician. Move away from the dangerous area.

#### Secreted Alkaline Phosphatase

##### Hazardous Information

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be harmful if absorbed through skin.

Ingestion: May be harmful if swallowed. Call a physician

Inhalation: May causes respiratory tract irritation. May be harmful if inhaled.

Symptoms of Exposure: Irritation

#### Handling

Handle as if capable of transmitting infectious agents. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.



**Storage**

Store at -20 degrees C. Store in a tightly closed container. Light and moisture sensitive. Stable under recommended storage conditions

**Personal Protection**

Wear appropriate protective clothing. Protect the skin by handling with gloves. Protect eyes by wearing face shield and safety glasses. Wash hands immediately before and after use.

**First Aid Measure**

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician.

Skin: Flush skin with excess amounts of water for at least 15 minutes. Consult a physician

Ingestion: POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. **SPEED IS ESSENTIAL, OBTAIN MEDICAL AID IMMEDIATELY.** Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes: Consult a physician. Show this safety data sheet to the physician. Move away from the dangerous area.

**SEAP Plasmids****Hazardous Information**

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be harmful if absorbed through skin.

Ingestion: May be harmful if swallowed. Call a physician

Inhalation: May causes respiratory tract irritation. May be harmful if inhaled.

Symptoms of Exposure: Irritation

**Handling**

Handle as if capable of transmitting infectious agents. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage**

Store at -20 degrees C. Store in a tightly closed container. Light and moisture sensitive. Stable under recommended storage conditions

**Personal Protection**

Wear appropriate protective clothing. Protect the skin by handling with gloves. Protect eyes by wearing face shield and safety glasses. Wash hands immediately before and after use.

**First Aid Measure**

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. **SPEEDY ACTION IS CRITICAL!**

Ingestion: POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. **SPEED IS ESSENTIAL, OBTAIN MEDICAL AID IMMEDIATELY.** Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes: Consult a physician. Show this safety data sheet to the physician. Move away from the dangerous area.

**10X Sample Dilution Buffer with 0.05% Sodium Azide****Hazardous Information**

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be harmful if absorbed through skin.

Ingestion: May be fatal if swallowed.



Inhalation: May causes respiratory tract irritation. May be harmful if inhaled.

Symptoms of Exposure: Irritation

#### Handling

Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

#### Storage

Store at 4 degrees C. Store in a tightly closed container. Light and moisture sensitive. Stable under recommended storage conditions

#### Personal Protection

Wear appropriate protective clothing. Protect the skin by handling with gloves. Protect eyes by wearing face shield and safety glasses. Wash hands immediately before and after use.

#### First Aid Measure

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Consult a physician.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. **SPEEDY ACTION IS CRITICAL!**

Ingestion: **POISON** material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. **SPEED IS ESSENTIAL, OBTAIN MEDICAL AID IMMEDIATELY.** Do not use mouth-to-mouth resuscitation if victim ingested or enhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes: Consult a physician. Show this safety data sheet to the physician. Move away from the dangerous area.





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