# **Product Datasheet**

# AKT1/2/3 Inhibitor Peptide Set NBP2-29332

Unit Size: 2 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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## NBP2-29332

AKT1/2/3 Inhibitor Peptide Set

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Product Information	
Unit Size	2 mg
Concentration	Lyoph
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Reconstitution Instructions	Please contact technical support for detailed reconstitution instructions.
Buffer	Solubilize the peptides prior to use by making 5 mM PBS* stock solutions (please see Preparation of 5 mM Stock Solutions under Preparation Method).
Product Description	
Gene ID	207
Gene Symbol	AKT1
Species	Human
Specificity/Sensitivity	The Akt (Isoforms 1,2,3) inhibitory peptide also contains a protein transduction (PTD) sequence (DRQIKIWFQNRRMKWKK) derived from antennapedia which renders the peptide cell permeable.  The control peptide consists of only the PTD sequence.
Immunogen	Functions as a TCL1 PH decoy by binding to Akt.
Preparation Method	Preparation of 5 mM Stock Solutions PBS* is added directly to the vials to prepare the stock solutions. Note: Bring the solution to room temperature and quick spin the tubes before opening the caps. Akt (Isoforms 1,2,3) Inhibitor Peptide: 1 mg of DRQIKIWFQNRRMKWKKAVTDHPDRLWAWEKF Add 47.6 ul of PBS* to the vial to make a 5 mM stock solution. Mix by vortexing. Aliquot and store at -20C or -80C. Avoid repeated freeze thawing.  Control Peptide: 1 mg of DRQIKIWFQNRRMKWKK Add 84.8 ul PBS* to the vial. Mix by vortexing. Aliquot and store at 20C or -80C. Avoid repeated freeze thawing.  Recipe for 1X PBS:  1. Dissolve the following in 800ml distilled H2O8g of NaCl -0.2g of KCl -1.44g of Na2HPO4 -0.24g of KH2PO4 2. Adjust pH to 7.5 with HCl. 3. Adjust volume to 1L with additional distilled H2O. 4. Sterilize by autoclaving
Inhibitor Family	AKT
Inhibitor Target	AKT1/2/3
Inhibitor Content	Akt (Isoforms 1,2,3) Inhibitor peptide: 2 x 1 mg (Iyophilized) DRQIKIWFQNRRMKWKKAVTDHPDRLWAWEKF (AKT sequence: AVTDHPDRLWAWEKF). Molecular weight: 4214. Antennapedia Control peptide: 2 x 1 mg (Iyophilized) DRQIKIWFQNRRMKWKK. Molecular weight: 2361

# **Product Application Details**



Application Notes	Inhibition of Akt kinase activity.  The inhibitor peptide is to block Akt1, Akt2, and Akt3 kinase activity. Optimal peptide concentrations and incubation times vary between model systems and should be determined empirically by users. A 100 uM final concentration may be a useful starting point.
	Please refer to Hiromura et al (2004) for additional information about how the

#### **Publications**

Hoffman JM, Sideri A, Ruiz JJ et al. Mesenteric Adipose-derived Stromal Cells From Crohn's Disease Patients Induce Protective Effects in Colonic Epithelial Cells and Mice With Colitis Cell Mol Gastroenterol Hepatol 2018-02-08 [PMID: 29928668] (Inhibition Activity, Human)

inhibitor peptide has been used to block Ak1, Akt2 and Akt3 kinase activity.

Hall JV, Sun J, Slade J et al. Host nectin-1 is required for efficient Chlamydia trachomatis serovar E development. Frontiers in Cellular and Infection Microbiology. 2014-10-16 [PMID: 25414835] (In vitro, Func, B/N)

#### Details:

AKT1/2/3 Inhibitor Peptide Set used for blocking/inhibition of AKT in HeLa cells monolayers infected with - mock-, Chlamydia trachomatis serovar E/UW-5/CX (CtE), HSV-2/beta g-, and CtE/HSV-2/beta g (FIGURE 2).



#### **Procedures**

#### Material Safety Datasheet (NBP2-29332)

AKT1/2/3 Inhibitor Peptide Set:

Hazard Information

Chemical Name: Non hazardous products

Chemical Formula: N/A CAS Number: N/A EEC-No: N/A

Hazard Identification

None

First Aid Measures Eye Contact: None Skin Contact: None Inhalation: None Ingestion: None

#### Accidental Release Measures

This product either does not contain hazardous constituents or the concentration of all chemical constituents are below the regulatory threshold limits described by Occupational Safety Health Administration Hazard Communication Standard 29 CFR 1910.1200 and the European Directive 91/155/EEC. 88/379/EEC, and 67/546/EEC.

Handling and Storage

Exposure Controls / Personal Protection

Other Precautions: None

Physical and Chemical Properties

Form: N/A Color: N/A Odor: N/A

Melting Point: N/A

Boiling Temperature: N/A

Density: N/A

Vapor Pressure: N/A Solubility in Water: N/A Flash Point: N/A Explosion limits: N/A Ignition Temperature: N/A





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## **Products Related to NBP2-29332**

210-TA-005 TNF-alpha [Unconjugated]

NBP3-21678-100ul AKT1/2/3 Antibody (SR2006)

DVE00 VEGF [HRP]

AF835 Caspase-3 Antibody [Unconjugated] - Active

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Inhibitors are guaranteed for 1 year from date of receipt.

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