

Datasheet for ABIN5654005 **PERK ELISA Kit**



[Go to Product page](#)

Overview

Quantity:	96 tests
Target:	PERK (EIF2AK3)
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	0.312 ng/mL - 20 ng/mL
Minimum Detection Limit:	0.312 ng/mL
Application:	ELISA

Product Details

Sample Type:	Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay has high sensitivity and excellent specificity for detection of Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3). No significant cross-reactivity or interference between Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3) and analogues was observed.
Sensitivity:	0.108 ng/mL

Target Details

Target:	PERK (EIF2AK3)
Alternative Name:	Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2AK3 Products)

Target Details

Background: Gene Name: Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3
Gene Aliases: WRS, PEK, PERK, HsPEK, PRKR-like endoplasmic reticulum kinase, Pancreatic eIF2-alpha kinase

Gene ID: 13666

UniProt: [Q9Z2B5](#)

Pathways: [Hormone Transport](#), [ER-Nucleus Signaling](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [Unfolded Protein Response](#)

Application Details

Comment: The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5 % within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.

Assay Time: 3 h

Plate: Pre-coated

Protocol: The test principle applied in this kit is Sandwich enzyme immunoassay. The microtiter plate provided in this kit has been pre-coated with an antibody specific to Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3). Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody specific to Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3), biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3) in the samples is then determined by comparing the O.D. of the samples to the standard curve.

Assay Precision: Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3) were tested 20 times on one plate, respectively
Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level Eukaryotic Translation Initiation Factor 2 Alpha Kinase 3 (EIF2aK3) were tested on 3 different

Application Details

plates, 8 replicates in each plate. CV(%) = SD/meanX100

Intra-Assay: CV<10%

Inter-Assay: CV<12%

Restrictions: For Research Use only

Handling

Handling Advice: The Stop Solution is acidic. Do not allow to contact skin or eyes. Calibrators, controls and specimen samples should be assayed in duplicate. Once the procedure has been started, all steps should be completed without interruption.

Storage: 4 °C,-20 °C

Storage Comment: -20°C. Bring all reagents to room temperature before beginning test. The kit may be stored at 4°C for immediate use within two days upon arrival. Reseal any unused strips with desiccant pack. Minimize freeze/thaw cycles.

Expiry Date: 4-8 months
