abcam

Product datasheet

Recombinant human TXK/RLK protein ab60900

画像数5

製品の詳細

製品名 Recombinant human TXK/RLK protein

生理活性 Specific Activity: 18 nmol/min/mg.

精製度 > 90 % Densitometry.

Affinity purified.

発現系 Baculovirus infected Sf9 cells

アクセッション番号 <u>P42681</u>

タンパク質長 Protein fragment

Animal free No

由来 Recombinant

生物種 Human 予測される分子量 53 kDa

領域 239 to 527

タグ GST tag N-Terminus

配列の追加情報 Recombinant fragment, corresponding to amino acids 239-end of Human TXK.

特性

Our **Abpromise guarantee** covers the use of **ab60900** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション SDS-PAGE

Functional Studies

製品の状態 Liquid

備考 <u>ab43614</u> (Human Myelin Basic Protein full length protein) can be utilized as a substrate for

assessing Kinase activity

This product was previously labelled as TXK

前処理および保存

保存方法および安定性

Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292%

EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

関連情報

機能

Non-receptor tyrosine kinase that plays a redundant role with ITK in regulation of the adaptive immune response. Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylation lead to the recruitment of TXK to the cell membrane, where it is phosphorylated at Tyr-420. Phosphorylation leads to TXK full activation. Contributes also to signaling from many receptors and participates in multiple downstream pathways, including regulation of the actin cytoskeleton. Like ITK, can phosphorylate PLCG1, leading to its localization in lipid rafts and activation, followed by subsequent cleavage of its substrates. In turn, the endoplasmic reticulum releases calcium in the cytoplasm and the nuclear activator of activated T-cells (NFAT) translocates into the nucleus to perform its transcriptional duty. With PARP1 and EEF1A1, TXK forms a complex that acts as a T-helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFNG to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production. Phosphorylates both PARP1 and EEF1A1. Phosphorylates also key sites in LCP2 leading to the up-regulation of Th1 preferred cytokine IL-2. Phosphorylates 'Tyr-201' of CTLA4 which leads to the association of Pl-3 kinase with the CTLA4

組織特異性

Expressed in T-cells and some myeloid cell lines. Expressed in Th1/Th0 cells with IFN-gamma-

producing potential.

receptor.

配列類似性

Belongs to the protein kinase superfamily. Tyr protein kinase family. TEC subfamily.

Contains 1 protein kinase domain.

Contains 1 SH2 domain. Contains 1 SH3 domain.

翻訳後修飾

Phosphorylated at Tyr-420 by FYN. Autophosphorylation at Tyr-91 is critical for the activation of

 $\mathsf{TXK},$ leading to the up-regulation of IFN-gamma gene transcription.

The cysteine string at the N-terminus is palmitoylated and required for the proper subcellular

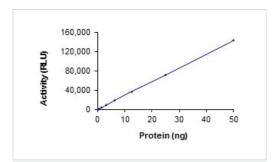
location.

細胞内局在

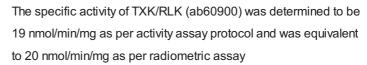
Cytoplasm. Nucleus. Cell membrane. Localizes in the vicinity of cell surface receptors in the plasma membrane after receptor stimulation. Translocates into the nucleus and enhances IFN-

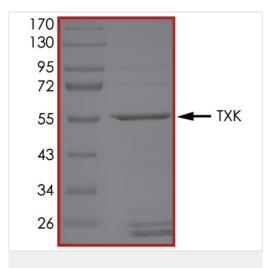
gamma gene transcription in T-cells.

画像



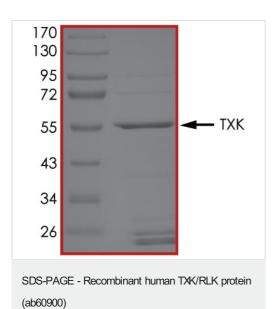
Functional Studies - Recombinant human TXK/RLK protein (ab60900)



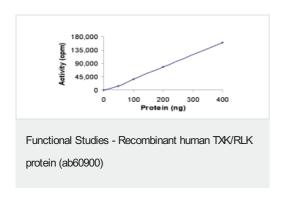


SDS-PAGE - Recombinant human TXK/RLK protein (ab60900)

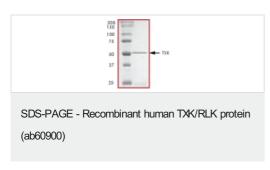
SDS PAGE analysis of ab60900



SDS PAGE analysis of ab60900



Sample Kinase Activity Plot.



ab60900 on SDS-PAGE, MW ~53 kDa.

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