

# Recombinant human TXK/RLK protein ab60900

画像数 5

### 製品の詳細

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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	<b><u>P42681</u></b>
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

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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	<b>ab43614</b> (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

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## 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

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### 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 PI-3 kinase with the CTLA4 receptor.

### 組織特異性

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

### 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 TXK, leading to the up-regulation of IFN-gamma gene transcription.

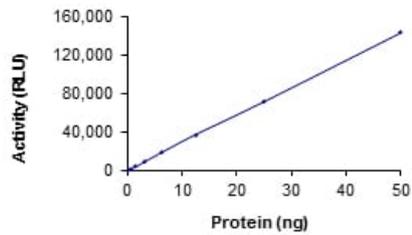
The cysteine string at the N-terminus is palmitoylated and required for the proper subcellular location.

### 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.

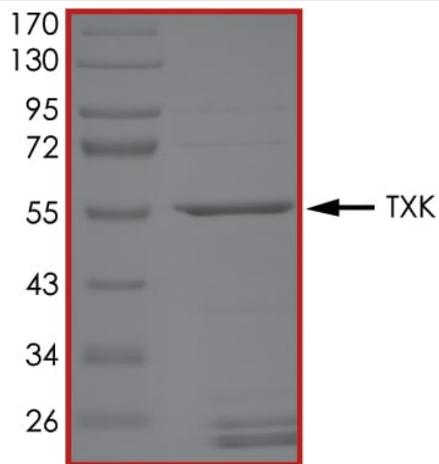
## 画像

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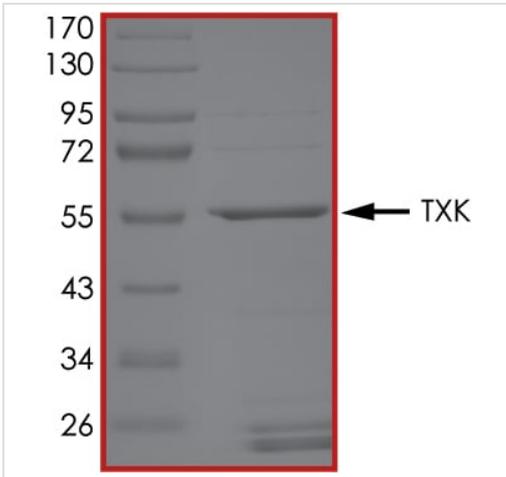
The specific activity of TXK/RLK (ab60900) was determined to be 19 nmol/min/mg as per activity assay protocol and was equivalent to 20 nmol/min/mg as per radiometric assay

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



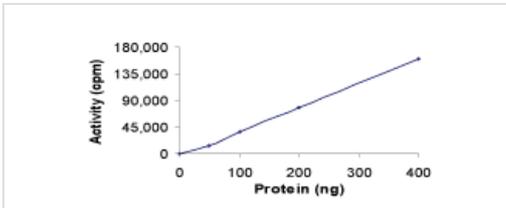
SDS PAGE analysis of ab60900

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



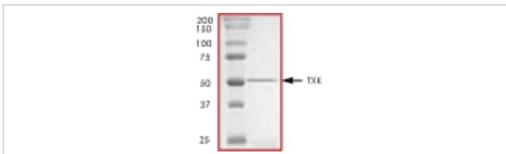
SDS PAGE analysis of ab60900

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



Sample Kinase Activity Plot.

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



ab60900 on SDS-PAGE, MW ~53 kDa.

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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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