

# Recombinant human TXK/RLK protein ab60900

## 5 图像

### 描述

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产品名称	重组人TXK/RLK蛋白
生物活性	Specific Activity: 18 nmol/min/mg.
纯度	> 90 % Densitometry. Affinity purified.
表达系统	Baculovirus infected Sf9 cells
Accession	<b><u>P42681</u></b>
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
预测分子量	53 kDa
氨基酸	239 to 527
标签	GST tag N-Terminus
额外的序列信息	Recombinant fragment, corresponding to amino acids 239-end of Human TXK.

### 技术指标

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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.

应用	SDS-PAGE Functional Studies
形式	Liquid
补充说明	<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

### 制备和贮存

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## 稳定性和存储

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.

## 常规信息

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### 功能

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.

### 组织特异性

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

### 序列相似性

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.

### 翻译后修饰

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.

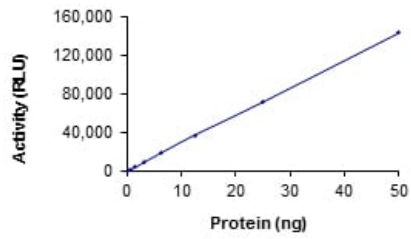
The cysteine string at the N-terminus is palmitoylated and required for the proper subcellular location.

### 细胞定位

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.

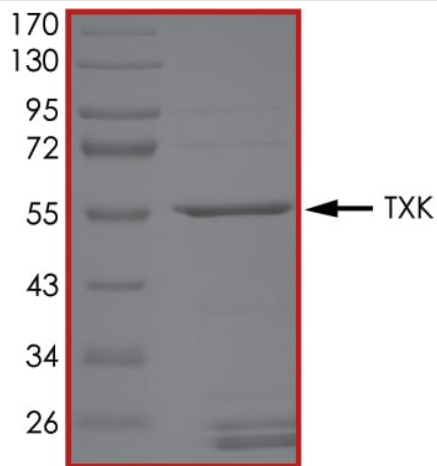
## 图片

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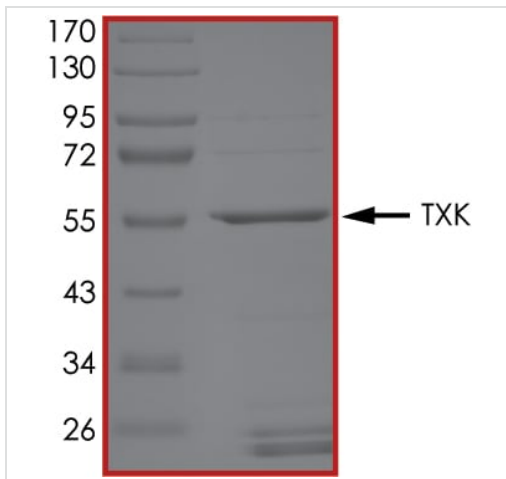
The specific activity of TXK/RLK (ab60900) was determined to be 19 nmol/min/mg as per activity assay protocol and was equivalent to 20 nmol/min/mg as per radiometric assay

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



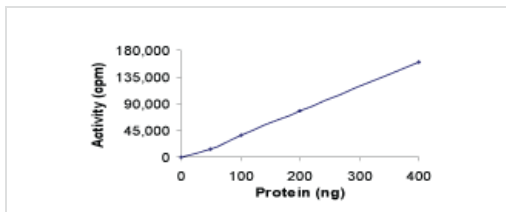
SDS PAGE analysis of ab60900

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



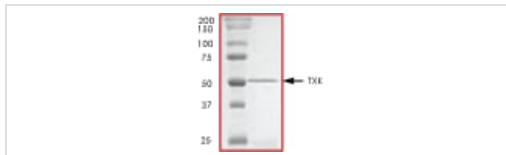
SDS PAGE analysis of ab60900

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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