**Product datasheet**

### p38 MAPK alpha (Thr180/Tyr182) In-Cell ELISA Kit

**ab126425**

<table>
<thead>
<tr>
<th>★★★★★ 1 Abreviews</th>
<th>2 References</th>
<th>5 Images</th>
</tr>
</thead>
</table>

#### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>p38 MAPK alpha (Thr180/Tyr182) In-Cell ELISA Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection method</td>
<td>Colorimetric</td>
</tr>
<tr>
<td>Sample type</td>
<td>Adherent cells</td>
</tr>
<tr>
<td>Assay type</td>
<td>Cell-based (qualitative)</td>
</tr>
<tr>
<td>Assay time</td>
<td>5h 10m</td>
</tr>
<tr>
<td>Assay duration</td>
<td>Multiple steps standard assay</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td>Product overview</td>
<td>ab126425 is a very rapid, convenient and sensitive assay kit that can monitor the activation or function of important biological pathways in cells. It can be used for measuring the relative amount of p38 MAPK (Thr180/Tyr182) phosphorylation and screening the effects of various treatments, inhibitors (such as siRNA or chemicals), or activators in cultured human, mouse and rat cell lines. By determining p38 MAPK protein phosphorylation in your experimental model system, you can verify pathway activation in your cell lines without spending excess time and effort in preparing cell lysate and performing an analysis of Western Blot.</td>
</tr>
</tbody>
</table>

In the p38 MAPK (Thr180/Tyr182) In-Cell ELISA Kit, cells are seeded into a 96 well tissue culture plate. The cells are fixed after various treatments, inhibitors or activators. After blocking, Anti-Phospho-p38 MAPK (Thr180/Tyr182) or Anti-p38 MAPK (primary antibody) is pipetted into the wells and incubated. The wells are washed, and HRP-conjugated anti-mouse IgG (secondary antibody) is added to the wells. The wells are washed again, a TMB substrate solution is added to the wells and color develops in proportion to the amount of protein. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

#### Tested applications

**Suitable for:** In-Cell ELISA

#### Platform

Microplate

#### Properties

#### Storage instructions

Store at -20°C. Please refer to protocols.
Function
Responds to activation by environmental stress, pro-inflammatory cytokines and lipopolysaccharide (LPS) by phosphorylating a number of transcription factors, such as ELK1 and ATF2 and several downstream kinases, such as MAPKAPK2 and MAPKAPK5. Plays a critical role in the production of some cytokines, for example IL-6. May play a role in stabilization of EPO mRNA during hypoxic stress. Isoform Mxi2 activation is stimulated by mitogens and oxidative stress and only poorly phosphorylates ELK1 and ATF2. Isoform Exip may play a role in the early onset of apoptosis.

Tissue specificity
Brain, heart, placenta, pancreas and skeletal muscle. Expressed to a lesser extent in lung, liver and kidney.

Sequence similarities
Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.
Contains 1 protein kinase domain.

Domain
The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.

Post-translational modifications
Dually phosphorylated on Thr-180 and Tyr-182, which activates the enzyme.
Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization
Cytoplasm. Nucleus.

Applications
Our Abpromise guarantee covers the use of ab126425 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
In-Cell ELISA - p38 MAPK (Thr180/Tyr182) In-Cell ELISA Kit (ab126425)

HeLa cells were stimulated by different concentrations of anisomycin for 15 minutes at 37°C.

Western blot analysis of extracts from 1 µg/ml Anisomycin treated HeLa cells. Phospho-p38 MAPK (Thr180/Tyr182) and Anti-p38 MAPK antibodies from ab126425 were used in both detection assays.

Images


In-Cell ELISA - p38 MAPK (Thr180/Tyr182) In-Cell ELISA Kit (ab126425)

HeLa cells were stimulated by different concentrations of anisomycin for 1 hour at 37°C.

Western blot analysis of extracts from 1 µg/ml Anisomycin treated HeLa cells. Phospho-p38 MAPK (Thr180/Tyr182) and Anti-p38 MAPK antibodies from ab126425 were used in both detection assays.
HeLa cells were stimulated by different concentrations of anisomycin for 15 minutes at 37°C.

In-Cell ELISA - p38 MAPK (Thr180/Tyr182) In-Cell ELISA Kit (ab126425)

HeLa cells were stimulated by different concentrations of anisomycin for 1 hour at 37°C.

In-Cell ELISA - p38 MAPK (Thr180/Tyr182) In-Cell ELISA Kit (ab126425)

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
Extensive multimedia technical resources to help you
We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors