

Product datasheet

Human FOXO3A (phospho S253) peptide ab27885

1 Image

Description

| | |
|---------------------|-------------------------------------|
| Product name | Human FOXO3A (phospho S253) peptide |
| Animal free | No |
| Nature | Synthetic |
| Species | Human |

Specifications

Our [Abpromise guarantee](#) covers the use of **ab27885** in the following tested applications.

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

| | |
|-------------------------|---|
| Applications | Blocking |
| Form | Lyophilized |
| Additional notes | <ul style="list-style-type: none"> - First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions. - If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer. - Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent. - Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised. - Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use. |

Preparation and Storage

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| Stability and Storage | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request. |
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General Info

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| Function | Transcriptional activator which triggers apoptosis in the absence of survival factors, including |
|-----------------|--|

neuronal cell death upon oxidative stress. Recognizes and binds to the DNA sequence 5'-[AG]TAAA[TC]A-3'.

Tissue specificity

Ubiquitous.

Involvement in disease

Note=A chromosomal aberration involving FOXO3 is found in secondary acute leukemias. Translocation t(6;11)(q21;q23) with MLL/HRX.

Sequence similarities

Contains 1 fork-head DNA-binding domain.

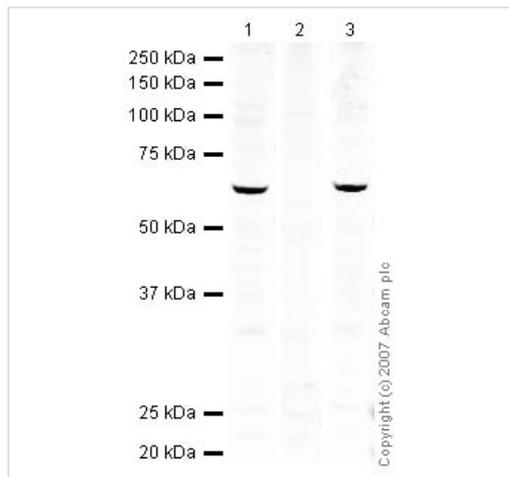
Post-translational modifications

In the presence of survival factors such as IGF-1, phosphorylated on Thr-32 and Ser-253 by AKT1/PKB. This phosphorylated form then interacts with 14-3-3 proteins and is retained in the cytoplasm. Survival factor withdrawal induces dephosphorylation and promotes translocation to the nucleus where the dephosphorylated protein induces transcription of target genes and triggers apoptosis. Although AKT1/PKB doesn't appear to phosphorylate Ser-315 directly, it may activate other kinases that trigger phosphorylation at this residue. Phosphorylated by STK4 on Ser-209 upon oxidative stress, which leads to dissociation from YWHAB/14-3-3-beta and nuclear translocation. Phosphorylated by PIM1.

Cellular localization

Cytoplasm > cytosol. Nucleus. Translocates to the nucleus upon oxidative stress and in the absence of survival factors.

Images



Western blot - Human FOXO3A (phospho S253) peptide (ab27885)

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