abcam

Product datasheet

Human AIRE peptide ab92688

画像数1

製品の詳細

製品名 Human AIRE peptide

精製度 > 70 % HPLC.

70 - 90% by HPLC

Animal free No.

由来 Synthetic

生物種 Human

特性

Our Abpromise guarantee covers the use of ab92688 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

Blocking

製品の状態

Liquid

備考

- 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.

前処理および保存

保存方法および安定性

Shipped at $4\,^{\circ}\text{C}$. Upon delivery aliquot and store at -20 $^{\circ}\text{C}$ or -80 $^{\circ}\text{C}$. Avoid repeated freeze / thaw

cycles.

Information available upon request.

関連情報

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機能

Transcriptional regulator that binds to DNA as a dimer or as a tetramer, but not as a monomer. Binds to G-doublets in an A/T-rich environment; the preferred motif is a tandem repeat of 5'-. ATTGGTTA-3' combined with a 5'-TTATTA-3' box. Binds to nucleosomes (By similarity). Binds to chromatin and interacts selectively with histone H3 that is not methylated at 'Lys-4', not phosphorylated at 'Thr-3' and not methylated at 'Arg-2'. Functions as a sensor of histone H3 modifications that are important for the epigenetic regulation of gene expression. Functions as a transcriptional activator and promotes the expression of otherwise tissue-specific self-antigens in the thymus, which is important for self tolerance and the avoidance of autoimmune reactions.

組織特異性

Widely expressed. Expressed at higher level in thymus (medullary epithelial cells and monocyte-dendritic cells), pancreas, adrenal cortex and testis. Expressed at lower level in the spleen, fetal liver and lymph nodes. Isoform 2 and isoform 3 seem to be less frequently expressed than isoform 1, if at all.

関連疾患

Defects in AIRE are a cause of autoimmune poly-endocrinopathy candidiasis ectodermal dystrophy (APECED) [MIM:240300]; also known as autoimmune polyglandular syndrome type I (APS-1). APECED is an autosomal recessive disease characterized by: (1) autoimmune polyendocrinopathies: hypoparathyroidism, adrenocortical failure, IDDM, gonadal failure, hypothyroidism, pernicious anemia, and hepatitis; (2) chronic mucocutaneous candidiasis; (3) ectodermal dystrophies: vitiligo, alopecia, keratopathy, dystrophy of dental enamel, nails and tympanic membranes. In addition, a high proportion of patients develop squamous cell carcinoma of the oral mucosa. The disease is reported worldwide but is exceptionally prevalent among the Finnish population (incidence 1:25000) and the Iranian jews (incidence 1:9000).

Note=Most of the mutations alter the nucleus-cytoplasm distribution of AIRE and disturb its association with nuclear dots and cytoplasmic filaments. Most of the mutations also decrease

association with nuclear dots and cytoplasmic filaments. Most of the mutations also decrease transactivation of the protein. The HSR domain is responsible for the homomultimerization activity of AIRE. All the missense mutations of the HSR and the SAND domains decrease this activity, but those in other domains do not. The AIRE protein is present in soluble high-molecular-weight complexes. Mutations in the HSR domain and deletion of PHD zinc fingers disturb the formation of these complexes.

配列類似性

Contains 1 HSR domain.

Contains 2 PHD-type zinc fingers.

Contains 1 SAND domain.

ドメイン

The L-X-X-L-L repeats may be implicated in binding to nuclear receptors.

The HSR domain is required for localization on tubular structures (N-terminal part) and for homodimerization.

Interacts via the first PHD domain with the N-terminus of histone H3 that is not methylated at 'Lys-4'. Disruption of the first PHD domain has been shown to lead to reduced transcriptional activity and to localization of the protein mainly in the cytoplasm in small granules. While the PHD zinc fingers are necessary for the transactivation capacity of the protein, other regions also modulate this function.

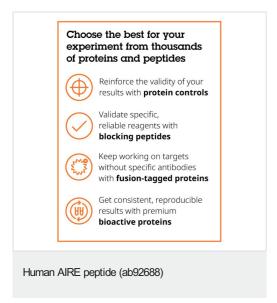
翻訳後修飾

Phosphorylated. Phosphorylation could trigger oligomerization.

細胞内局在

Nucleus. Cytoplasm. Associated with tubular structures and in discrete nuclear dots resembling ND10 nuclear bodies. May shuttle between nucleus and cytoplasm.

画像



To learn more about our protein and peptide range click **here**.

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