abcam

Product datasheet

Human PALB2 peptide ab38740

製品の詳細

製品名 Human PALB2 peptide

精製度 > 90 % HPLC.

Animal free No

由来 Synthetic

生物種 Human

特性

Our Abpromise guarantee covers the use of ab38740 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°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

Information available upon request.

関連情報

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機能

Plays a critical role in homologous recombination repair (HRR) through its ability to recruit BRCA2 and RAD51 to DNA breaks. Serves as the molecular scaffold in the formation of the BRCA1-PALB2-BRCA2 complex which is essential for homologous recombination. Strongly stimulates the DNA strand-invasion activity of RAD51, stabilizes the nucleoprotein filament against a disruptive BRC3-BRC4 polypeptide and helps RAD51 to overcome the suppressive effect of replication protein A (RPA). Functionally cooperates with RAD51AP1 in promoting of D-loop formation by RAD51. Essential partner of BRCA2 that promotes the localization and stability of BRCA2. Also enables its recombinational repair and checkpoint functions of BRCA2. May act by promoting stable association of BRCA2 with nuclear structures, allowing BRCA2 to escape the effects of proteasome-mediated degradation. Binds DNA with high affinity for D loop, which comprises single-stranded, double-stranded and branched DNA structures.

関連疾患

Note=Genetic variations in PALB2 are associated with breast cancer susceptibility. Defects in PALB2 are the cause of Fanconi anemia complementation group N (FANCN) [MIM:610832]. It is a disorder affecting all bone marrow elements and resulting in anemia, leukopenia and thrombopenia. It is associated with cardiac, renal and limb malformations, dermal pigmentary changes, and a predisposition to the development of malignancies. At the cellular level it is associated with hypersensitivity to DNA-damaging agents, chromosomal instability (increased chromosome breakage) and defective DNA repair.

Defects in PALB2 are the cause of pancreatic cancer type 3 (PNCA3) [MIM:613348]. It is a malignant neoplasm of the pancreas. Tumors can arise from both the exocrine and endocrine portions of the pancreas, but 95% of them develop from the exocrine portion, including the ductal epithelium, acinar cells, connective tissue, and lymphatic tissue.

配列類似性

ドメイン Interaction with BRCA2 occurs through a hydrophobic pocket at the crossover between WD

repeats 4 and 5.

翻訳後修飾 Phosphorylated upon DNA damage, probably by ATM or ATR.

Contains 7 WD repeats.

細胞内局在 Nucleus. Colocalizes with BRCA2 in nuclear foci.

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