abcam

Product datasheet

Anti-FANCD2 (phospho S1404) antibody [EPR2278(2)] ab109542

יעלאעבע RabMAb

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製品の概要

製品名 Anti-FANCD2 (phospho S1404) antibody [EPR2278(2)]

製品の詳細 Rabbit monoclonal [EPR2278(2)] to FANCD2 (phospho S1404)

由来種 Rabbit

アプリケーション **適用あり:** WB

適用なし: Flow Cyt,ICC/IF,IHC-P or IP

種交差性 交差種: Human

交差が予測される動物種: Mouse 4

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール HeLa whole cell lysate (ab150035)

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Rat: We have preliminary internal testing data to indicate this antibody may not react with this

species. Please contact us for more information.

製品の特性

製品の状態

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

バッファー pH: 7.20

Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue

culture supernatant

1

精製度 Protein A purified

ポリ/モノ モノクローナル

クローン名 EPR2278(2)

アイソタイプ lgG

アプリケーション

The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab109542の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000 - 1/10000. Predicted molecular weight: 166 kDa.

追加情報 Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

ターゲット情報

機能 Required for maintenance of chromosomal stability. Promotes accurate and efficient pairing of

homologs during meiosis. Involved in the repair of DNA double-strand breaks, both by homologous recombination and single-strand annealing. May participate in S phase and G2 phase checkpoint activation upon DNA damage. Promotes BRCA2/FANCD1 loading onto

damaged chromatin. May also be involved in B-cell immunoglobulin isotype switching.

組織特異性 Highly expressed in germinal center cells of the spleen, tonsil, and reactive lymph nodes, and in

the proliferating basal layer of squamous epithelium of tonsil, esophagus, oropharynx, larynx and cervix. Expressed in cytotrophoblastic cells of the placenta and exocrine cells of the pancreas (at

protein level). Highly expressed in testis, where expression is restricted to maturing

spermatocytes.

関連疾患 Defects in FANCD2 are a cause of Fanconi anemia complementation group D type 2 (FANCD2)

[MIM:227646]. 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.

発生段階 Highly expressed in fetal oocytes, and in hematopoietic cells of the fetal liver and bone marrow (at

protein level).

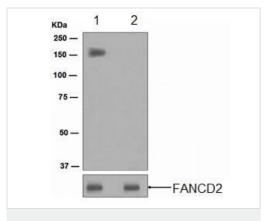
ドメイン The C-terminal 24 residues of isoform 2 are required for its function.

翻訳後修飾 Monoubiquitinated on Lys-561 during S phase and upon genotoxic stress (isoform 1 and isoform

2). Deubiquitinated by USP1 as cells enter G2/M, or once DNA repair is completed.

Monoubiquitination requires the FANCA-FANCB-FANCC-FANCE-FANCF-FANCG-FANCM complex, RPA1 and ATR, and is mediated by FANCL/PHF9. Ubiquitination is required for binding to chromatin, interaction with BRCA1, BRCA2 and MTMR15/FAN1, DNA repair, and normal cell cycle progression, but not for phosphorylation on Ser-222 or interaction with MEN1. Phosphorylated in response to various genotoxic stresses by ATM and/or ATR. Upon ionizing radiation, phosphorylated by ATM on Ser-222 and Ser-1404. Phosphorylation on Ser-222 is required for S-phase checkpoint activation, but not for ubiquitination, foci formation, or DNA repair. In contrast, phosphorylation by ATR on other sites may be required for ubiquitination and

画像



Western blot - Anti-FANCD2 (phospho S1404) antibody [EPR2278(2)] (ab109542)

All lanes : Anti-FANCD2 (phospho S1404) antibody [EPR2278(2)] (ab109542) at 1/1000 dilution

Lane 1: HeLa cell lysate, untreated

Lane 2: HeLa cell lysate treated with Alkaline Phosphatase.

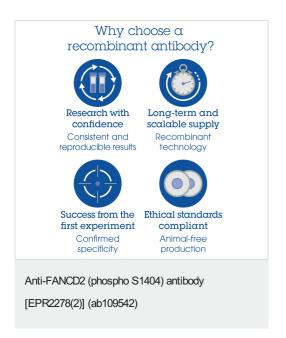
Lysates/proteins at 10 µg per lane.

Secondary

All lanes: HRP-labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 166 kDa

The lower panel is analysed using an alternative anti-FANCD2 antibody which is not phospho-specific.



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