

Kaiso (D-10): sc-365428

BACKGROUND

The POZ-zinc finger protein Kaiso is a member of the BTB/POZ family of zinc finger transcription factors implicated in embryonic development and cancer. Kaiso, also known as ZNF-kaiso, maps to human chromosome Xq24 and encodes a 627 amino acid protein. Kaiso is a transcriptional repressor that contains an amino-terminal BTB-POZ protein-protein interaction domain and three carboxy-terminal zinc finger domains of the C₂H₂ DNA-binding type. The zinc-finger domains of Kaiso specifically recognize symmetrically methylated DNA sequences *in vitro*. Kaiso is known to associate with p120 catenin. Kaiso functions throughout development, and its repressor functions are most apparent in the context of neural tissues. Kaiso is predominantly localized to the nucleus and is expressed in the brain, eye, ear, branchial arches and spinal cord as well as NIH/3T3 cells.

CHROMOSOMAL LOCATION

Genetic locus: ZBTB33 (human) mapping to Xq24.

SOURCE

Kaiso (D-10) is a mouse monoclonal antibody raised against amino acids 345-498 mapping within an internal region of Kaiso of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-365428 X, 200 µg/0.1 ml.

Kaiso (D-10) is available conjugated to agarose (sc-365428 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365428 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365428 PE), fluorescein (sc-365428 FITC), Alexa Fluor® 488 (sc-365428 AF488), Alexa Fluor® 546 (sc-365428 AF546), Alexa Fluor® 594 (sc-365428 AF594) or Alexa Fluor® 647 (sc-365428 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365428 AF680) or Alexa Fluor® 790 (sc-365428 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Kaiso (D-10) is recommended for detection of Kaiso of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Kaiso siRNA (h): sc-38019, Kaiso shRNA Plasmid (h): sc-38019-SH and Kaiso shRNA (h) Lentiviral Particles: sc-38019-V.

Kaiso (D-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

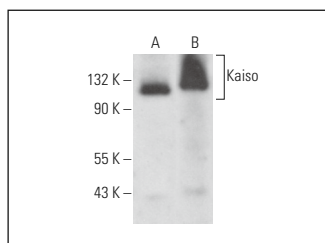
Molecular Weight of Kaiso: 75 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or A-431 whole cell lysate: sc-2201.

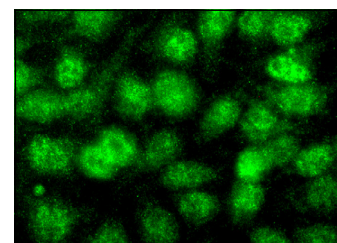
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Kaiso (D-10): sc-365428. Western blot analysis of Kaiso expression in MCF7 (A) and A-431 (B) whole cell lysates.



Kaiso (D-10): sc-365428. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Mahpour, A., et al. 2018. A methyl-sensitive element induces bidirectional transcription in TATA-less CpG island-associated promoters. *PLoS ONE* 13: e0205608.
2. Tian, W., et al. 2022. Kaiso phosphorylation at threonine 606 leads to its accumulation in the cytoplasm, reducing its transcriptional repression of the tumor suppressor CDH1. *Mol. Oncol.* 16: 3192-3209.
3. Racherla, K.S., et al. 2023. PRMT-1 and p120-catenin as EMT mediators in osimertinib resistance in NSCLC. *Cancers* 15: 3461.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA