

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cbx2 in ELISA.
Source	Monoclonal Mouse IgG ₁ Clone # 880833
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Cbx2 Lys131-His217 Accession # Q14781
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

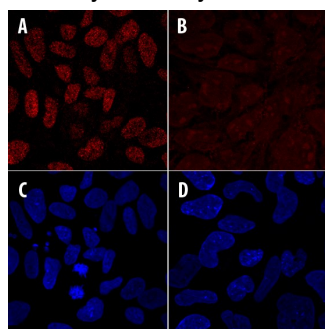
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	8-25 µg/mL	See Below

DATA

Immunocytochemistry



Cbx2 in IPS2 Human Stem Cells. Cbx2 was detected in immersion fixed iPS2 human induced pluripotent stem cells, differentiated with 0.2 µM retinoic acid for 4 days (panels A and C) or undifferentiated (panels B and D), using Mouse Anti-Human Cbx2 Monoclonal Antibody (Catalog # MAB8098) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panels; Catalog # NL007) and counterstained with DAPI (blue, lower panels). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Stem Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Chromobox homolog 2 (Cbx2), also known as CDCA6 and M33, is an approximately 56 kDa protein component of the nuclear polycomb repressive complex 1 (PRC1). PRC1 regulates chromatin organization and gene transcription. Cbx2 interacts with methylated histone H3, and this is regulated by phosphorylation of Ser42 within the Cbx2 chromodomain. Cbx2 is required for male sex determination by activating expression of the Sry gene. It is also important for germ cell viability and meiotic chromosome synapsis. Within amino acids 131-217, human Cbx2 shares 94% and 92% aa sequence identity with mouse and rat Cbx2, respectively. Alternative splicing generates an additional isoform that is substituted and truncated following Lys96.