

Product Datasheet

FoxC1 Antibody NB100-1268

Unit Size: 0.1 mg

Store at -20C. Avoid freeze-thaw cycles.

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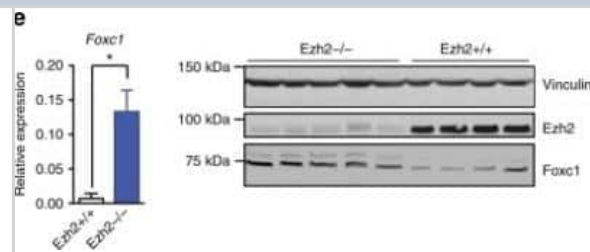
NB100-1268**FoxC1 Antibody**

Product Information	
Unit Size	0.1 mg
Concentration	0.5 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris saline (20 mM Tris pH 7.3, 150 mM NaCl), 0.5% BSA
Product Description	
Host	Goat
Gene ID	2296
Gene Symbol	FOXC1
Species	Human, Mouse, Zebrafish
Reactivity Notes	Zebrafish embryos reactivity is reported in scientific literature (PMID: 17000708). Mouse reactivity reported (PMID: 29959321) . Expected reactivity from sequence similarity: Rat.
Immunogen	FoxC1 Antibody is made to a peptide with sequence RTSGAFVYDCSKF corresponding to C-Terminus according to NP_001444.2.
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Peptide ELISA, Chromatin Immunoprecipitation (ChIP), Knockdown Validated, Knockout Validated
Recommended Dilutions	Western Blot 0.5 - 1.5 ug/mL, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 10 ug/mL, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen, Peptide ELISA Detection limit 1:32000, Chromatin Immunoprecipitation (ChIP) 1:10-1:500, Knockout Validated, Knockdown Validated
Application Notes	FoxC1 Antibody validated for ChIP from a verified customer review.A customer has reported positive results on human breast cancer cells (T47D). Use in IHC-P reactivity reported in (:29959321) . Use in IHC-Fr reported in scientific literature (PMID: 23862012).

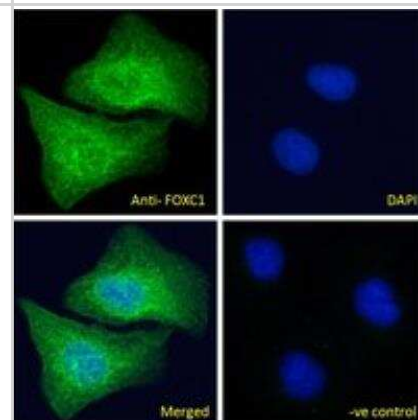


Images

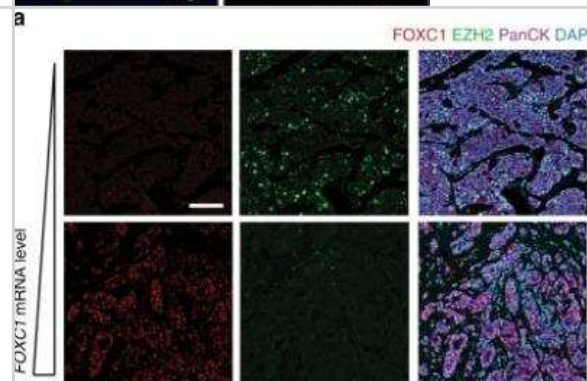
Western Blot: FoxC1 Antibody [NB100-1268] - Left- Significant upregulation of Foxc1 mRNA in Ezh2^{-/-} Tet-ON PyVmT endpoint tumours compared to wild-type tumours. Right- Immunoblot of Ezh2^{+/+} or Ezh2^{-/-} Tet-ON PyVmT endpoint tumours for Foxc1 and Ezh2 levels. Vinculin loading control. * $p < 0.05$, two tailed t-test. Image collected and cropped by CiteAb from the following publication ([nature.com/articles/s41467-018-04864-8](https://www.nature.com/articles/s41467-018-04864-8)), licensed under a CC-BY license.



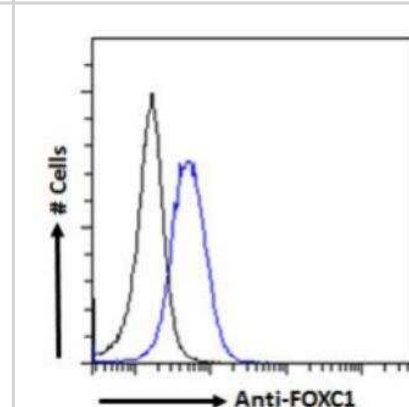
Immunocytochemistry/Immunofluorescence: FoxC1 Antibody [NB100-1268] - Paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary antibody at 10 ug/mL, 1 hr incubation, followed by Alexa Fluor 488 secondary antibody at 2 ug/mL, showing nuclear and cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10 ug/mL) followed by Alexa Fluor 488 secondary antibody (2 ug/mL).



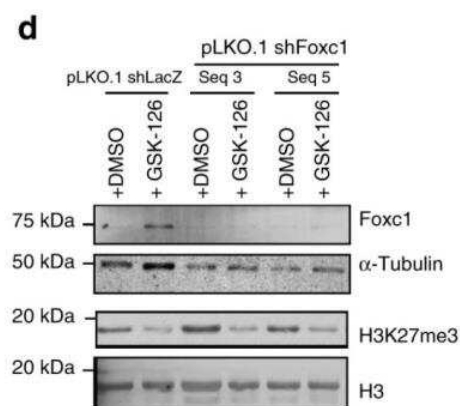
Immunohistochemistry: FoxC1 Antibody [NB100-1268] - Representative images of formalin fixed paraffin-embedded tissue samples from human Luminal B tumours stained for FOXC1 and EZH2. Scale bar is 100um. Image collected and cropped by CiteAb from the following publication ([nature.com/articles/s41467-018-04864-8](https://www.nature.com/articles/s41467-018-04864-8)), licensed under a CC-BY license.



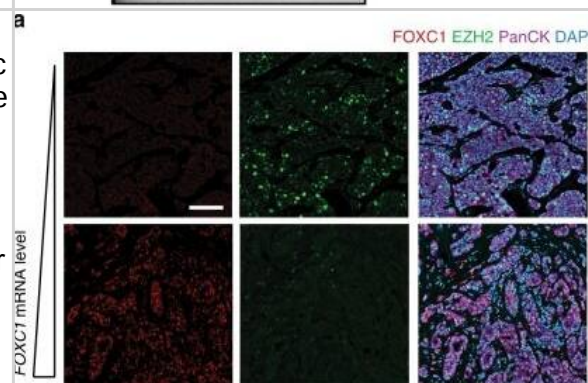
Flow Cytometry: FoxC1 Antibody [NB100-1268] - Paraformaldehyde fixed HEK293 cells (blue line), permeabilized with 0.5% Triton. Primary antibody at 10 ug/mL, 1 hr incubation, followed by Alexa Fluor 488 secondary antibody at 2 ug/mL. IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



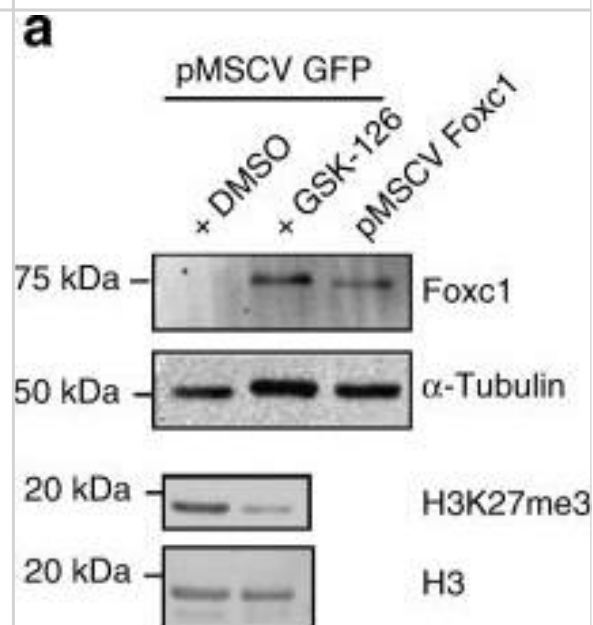
Knockdown Validated: FoxC1 Antibody [NB100-1268] - Left: Representative immunoblot showing Foxc1 expression in cells stably transduced with a control shRNA (shLacZ) or two independent shRNAs targeting Foxc1 and treated with DMSO or GSK-126 (2 μ M for 72h). α -Tubulin was used as a loading control. Image collected and cropped by CiteAb from the following publication (nature.com/articles/s41467-018-04864-8), licensed under a CC-BY license.



Immunocytochemistry/ Immunofluorescence: FoxC1 Antibody [NB100-1268] - Breast Cancer subtype specificity of the EZH2/FOXC1 metastatic axis. a Representative images of formalin fixed paraffin-embedded tissue samples from human Luminal B tumours stained for FOXC1 & EZH2. Scale bar is 100 μ m. b Significant negative correlation between FOXC1 transcript levels & EZH2 protein levels (Total intensity) quantified by immunofluorescence in human Luminal B patient samples ($r = -0.52$, $p = 0.02$). Eight different fields taken with a $\times 20$ objective were quantified per sample. c Kaplan–Meier survival curve of relapse-free survival (RFS) of 1142 luminal B tumours with high or low FOXC1 (log rank $p = 0.001$). d Correlation between FOXC1 mRNA levels & the FOXC1 Signature in a cohort of 385 Luminal B patients from publicly available TCGA Breast Cancer data set. e Kaplan–Meier analysis of relapse-free survival of 1142 Luminal B tumours with high or low FOXC1 gene signature expression (log rank $p = 0.0044$). RFS relapse-free survival Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29959321>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: FoxC1 Antibody [NB100-1268] - Ectopic expression of Foxc1 alters invasion but not proliferation. a Transwell invasion assay of PyVmT cells expressing exogenous Foxc1 or GFP. Experiments were performed three times, & results are displayed relative to untreated parental cell. * $p < 0.05$, Student's two tailed t-tests. b CyQUANT assay measuring cellular proliferation of PyVmT cells expressing exogenous GFP or Foxc1. R.F.U relative fluorescence units. Data were normalized to the fluorescence values at time = 0. c Enumeration of lung lesions following the injection of PyVmT cells expressing exogenous Foxc1 or GFP in the tail vein of athymic nude mice. * $p < 0.05$, Student's two tailed t-tests. Scale bar is 5 mm. d Left: Representative immunoblot showing Foxc1 expression in cells stably transduced with a control shRNA (shLacZ) or two independent shRNAs targeting Foxc1 & treated with DMSO or GSK-126 (2 μ M for 72 h). α -Tubulin was used as a loading control. Right: Transwell invasion assay of PyVmT cells infected with shRNA targeting LacZ (control) or two different sequences targeting Foxc1. Cells were pre-treated with DMSO or GSK-126 (2 μ M) for 72 h & assayed for their capacity to invade through Matrigel. All assays were performed in triplicate. * $p < 0.05$, Student's two tailed t-tests Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/29959321>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

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- Lin Yu-Jung, Shyu Woei-Cherng, Chang Chi-Wei et al. Tumor Hypoxia Regulates Forkhead Box C1 to Promote Lung Cancer Progression. *Theranostics* 2018-03-05 [PMID: 28435458] (WB, IHC-Fr, Human)
- Hirukawa A, Smith HW, Zuo D et al. Targeting EZH2 reactivates a breast cancer subtype-specific anti-metastatic transcriptional program. *Nat Commun*. 2018-06-29 [PMID: 29959321] (IHC-P, Mouse)
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NB410-28088-1mg	Goat IgG Isotype Control

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