

## HP-1?

CONTACT INFORMATION:	Monoclonal Antibodies Unit. Centro Nacional de Investigaciones Oncológicas
STATUS:	Validated
TYPE:	rat anti human
CLONE NAME:	HP330A
PROTEIN:	human full length HP1?
PROTEIN WEB:	<a href="http://www.hprd.org/summary?hprd_id=05131&amp;isoform_id=05131_3&amp;isoform_name=Isoform_1">http://www.hprd.org/summary?hprd_id=05131&amp;isoform_id=05131_3&amp;isoform_name=Isoform_1</a>
ANTIGEN USED:	GST-HP1? and GST-HP1? recombinant proteins
FUSION PARTNER:	NS-1
ISOTYPE:	IgG2a
SPECIES REACTIVITY:	Human
PREPARATION AND STORAGE:	Aliquot and store at 4C. Do not freeze
APP RECOMMENDED:	IHQ-paraffin, IHQ-frozen, IF, WB
APP NO TESTED:	IP, Flow cytometry

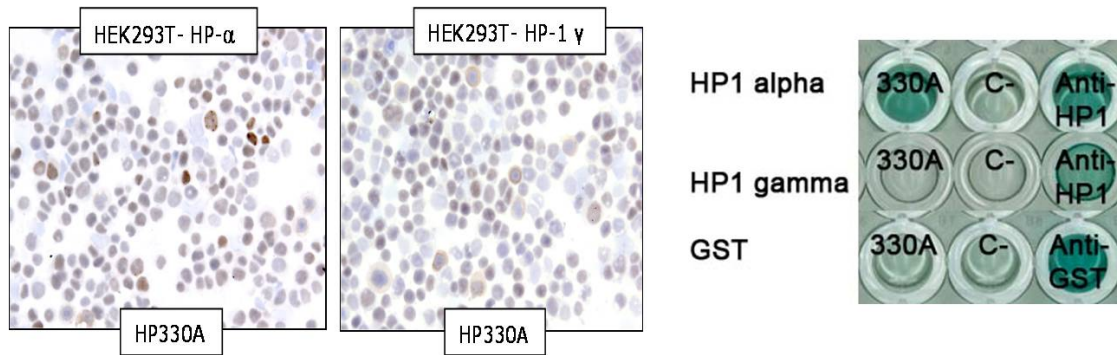
### DESCRIPTION

Heterochromatin protein-1 (HP1) is a methyl-lysine binding protein localized at heterochromatin sites, where it mediates gene silencing. HP-1alpha is involved in the formation of functional kinetochore through interaction with MIS12 complex proteins. HP-1alpha also interacts with lamin B receptor, contributing to the association of the heterochromatin with the inner nuclear membrane.

### APPLICATIONS

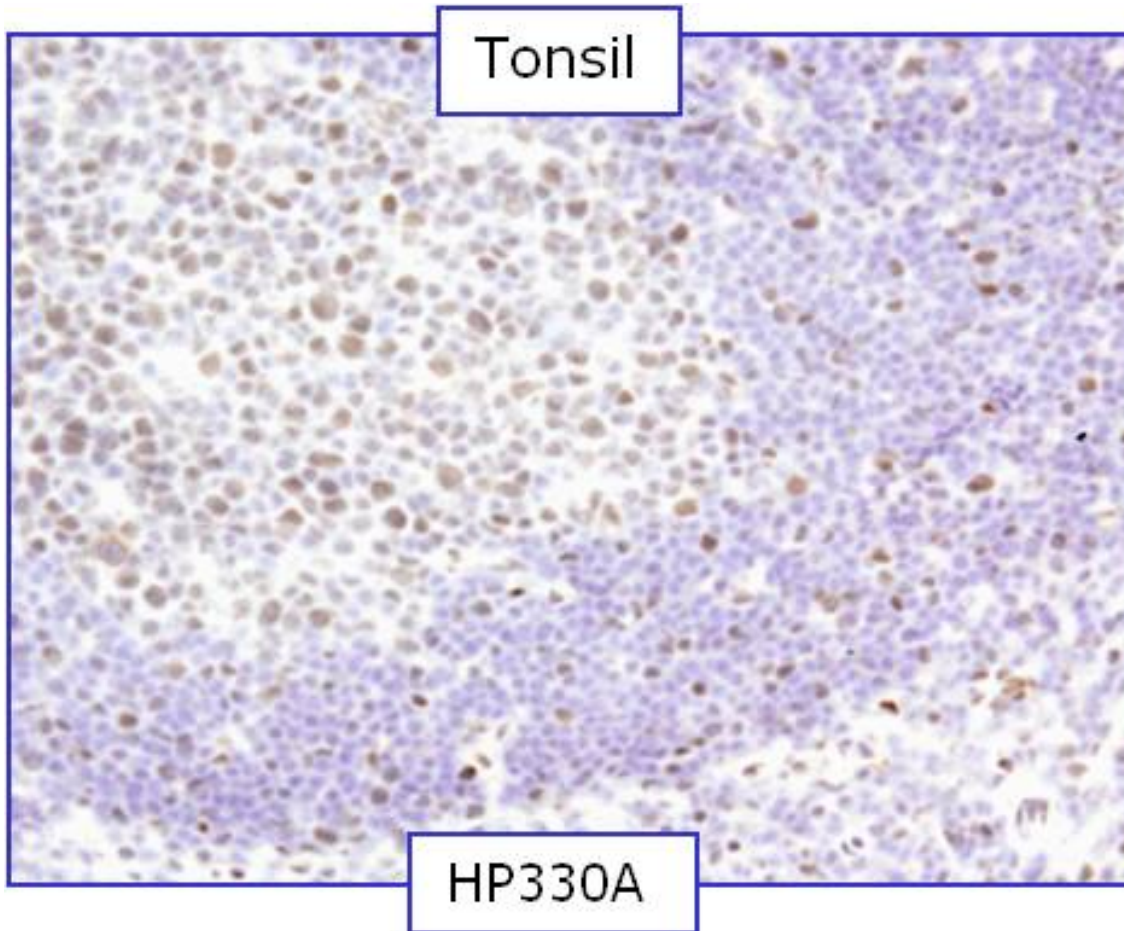
IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species
<b>Frozen tissue and cytospins</b>									
Recommended	HP330 A	1:20	supernatant	None	rabbit anti rat HRP	Tonsil		Nuclear	not done

Paraffin tissue									
Recommended	HP330 A	1:20	upernatant	20 min ER2		Tonsil		Nuclear	not done
Immunofluorescence									
Recommended	HP330 A	neat	upernatant	20 min ER2		Tonsil		Nuclear	not done

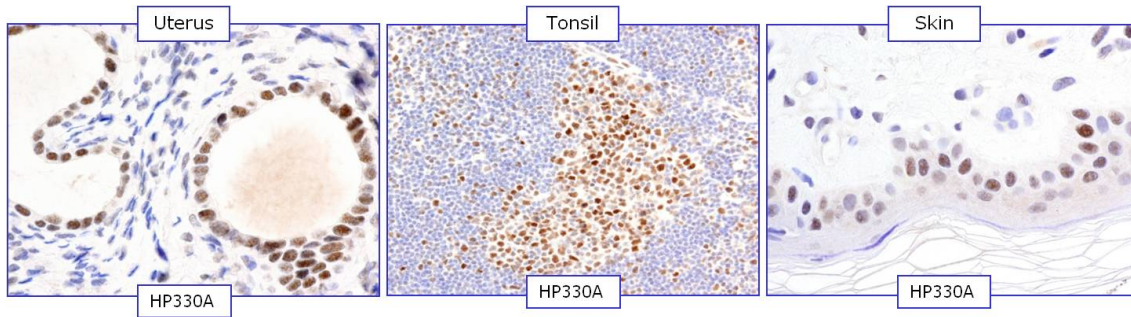


### HP1 (330A) IHC in transfected cytopins and by ELISA

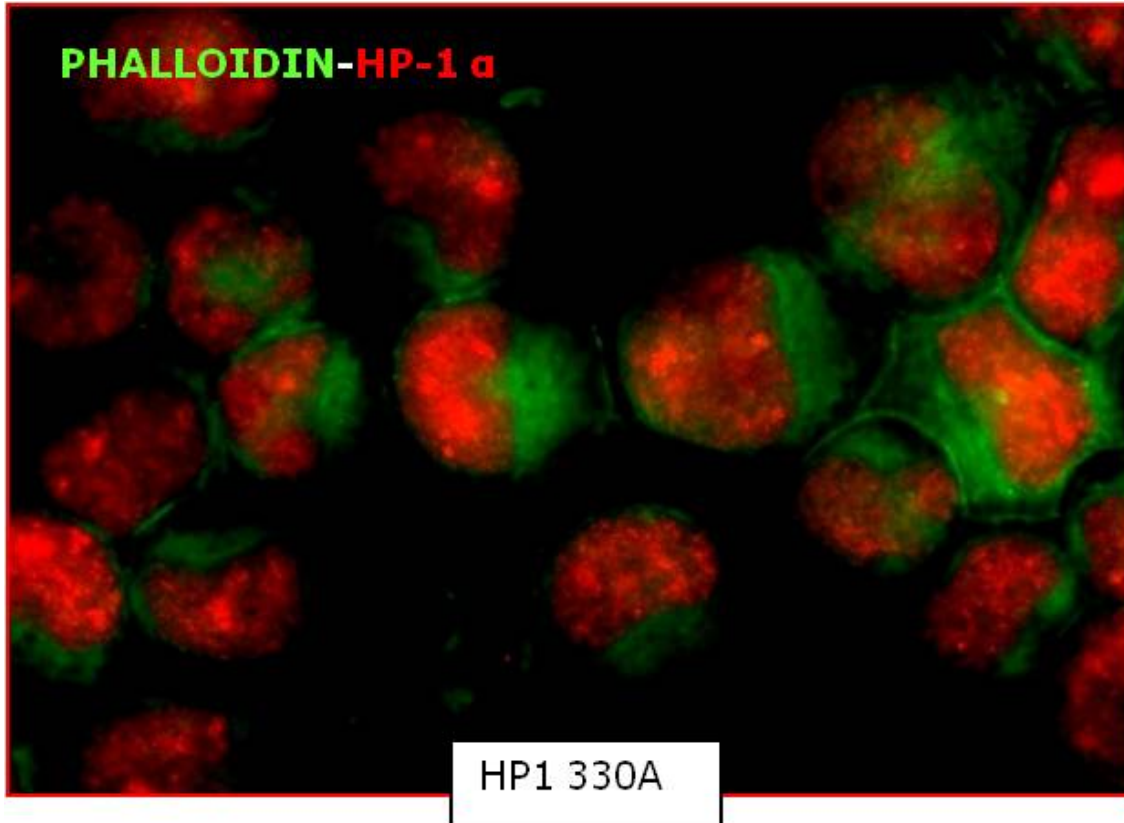
Heterochromatin protein-1 (HP1) is a methyl-lysine binding protein localized at heterochromatin sites and expressed in all cell types. We made a mAb against HP1 protein using, as immunogen, a combination of HP1 alpha and HP1 gamma protein. We could not distinguish by IHC in transfected Hek HP1 alpha and HP1 gamma which subunit was recognized by our antibody since strong nuclear staining was observed in both cytopins. Using ELISA technique we could determine that our antibody is specific for the alpha subunit.



**Rat monoclonal 330A can be used to detect HP1 ? expression in frozen human tissues.**

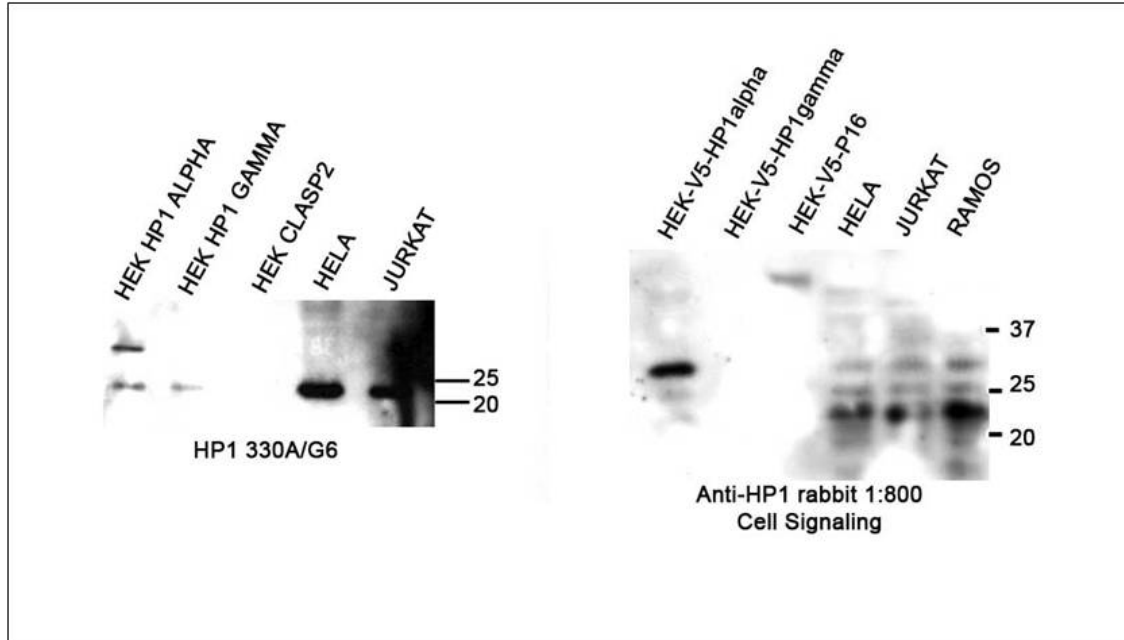


**Rat monoclonal 330A can be used to detect HP1 ? expression in paraffin human tissue**



Immunofluorescence of HP1 (330A) mAb in Ramos cell line

WB Techniques	Clone	Dilution	Antibody concentration	Positive control	Negative control	Expected MW	Observed Mw	Positivity in other species
<b>Western Blotting</b>								
Recommended	HP330A	neat	supernatant	Hela		22kDa	22kDa	Not done
<b>Immunoprecipitation</b>								



**Rat monoclonal HP330A can be used to detect HP1? protein in human cell lines by WB.**

Lanes

Lane 1 Transfected Hek-V5-HP1 ? (10?g) (+)

Lane 2 Transfected Hek-V5-HP-1 ? (10?g) (-)

Lane 3 Transfected Hek-V5-P16 (10?g) (-)

Lane 4 Hela cell line (100?g) (+)

Lane 5 Jurkat cell line (100?g) (+)

Lane 6 Ramos cell line (100 ?g) (+)

Rabbit antibody from Cell Signaling was used at 1:800