

# Product Datasheet

## Alkaline Phosphatase, Tissue Non-Specific Antibody (TRA-2-49) - BSA Free NB600-540

Unit Size: 0.05 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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[technical@novusbio.com](mailto:technical@novusbio.com)

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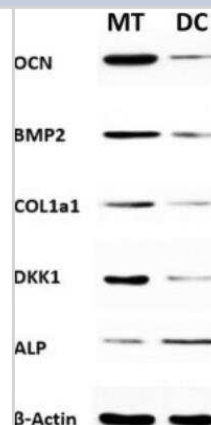
**NB600-540**

Alkaline Phosphatase, Tissue Non-Specific Antibody (TRA-2-49) - BSA Free

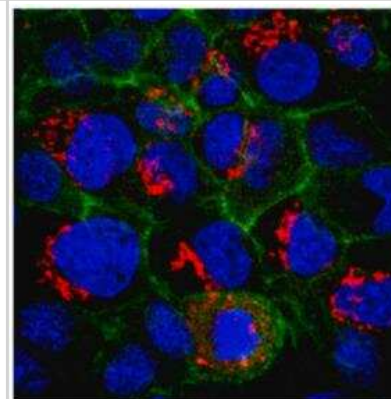
<b>Product Information</b>	
<b>Unit Size</b>	0.05 mg
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	TRA-2-49
<b>Preservative</b>	0.1% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Protein A purified
<b>Buffer</b>	20mM PBS (pH 7.6) and 0.25M NaCl
<b>Product Description</b>	
<b>Description</b>	Novus Biologicals Mouse Alkaline Phosphatase, Tissue Non-Specific Antibody (TRA-2-49) - BSA Free (NB600-540) is a monoclonal antibody validated for use in IHC, WB, Flow, ICC/IF and IP. Anti-Alkaline Phosphatase, Tissue Non-Specific Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Mouse
<b>Gene ID</b>	249
<b>Gene Symbol</b>	ALPL
<b>Species</b>	Human, Porcine, Feline, Rabbit
<b>Reactivity Notes</b>	Reactivity has been demonstrated with Liver/ Bone/Kidney isozyme of Alkaline Phosphatase (AP) from Humans, Higher Primates (Chimpanzee, Gorilla, Orangutan and Gibbon), New World Monkeys (Owl Monkey, Squirrel Monkey), Cat, Pig, Rabbit and Tiger.  No reactivity has been observed with Old World Monkeys (Baboon, Rhesus monkey, Mangabey, Mandrill, Celebese Black Ape, African Green Monkey), Bovine, Canine, Goat, Guinea Pig, Hamster, Mouse, Rat and Sheep. This antibody does not cross react with other isozymes of AP.
<b>Specificity/Sensitivity</b>	Undifferentiated human Embryonal Carcinoma (EC) and Embryonic Stem (ES) cells have been shown to express very high levels of Alkaline Phosphatase isozyme that is indistinguishable from the isozyme found in liver, bone and kidney. Expression levels of AP decrease following stem cell differentiation. This clone can be used in flow cytometry to determine the expression of the Liver / Bone / Kidney isozyme of Alkaline Phosphatase (AP), and hence monitor the differentiation status of EC and ES cells. This antibody does not cross react with other isozymes of AP.
<b>Immunogen</b>	2102Ep Human Embryonal Carcinoma Cells
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
<b>Recommended Dilutions</b>	Western Blot, Flow Cytometry 5-20 ug/ml, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:10-1:2000, Immunoprecipitation 1:10-1:500
<b>Application Notes</b>	Does not work on frozen sections. Use in WB reported in scientific literature (PMID: 30486863). Use in IHC reported in scientific literature (PMID:34394354).

## Images

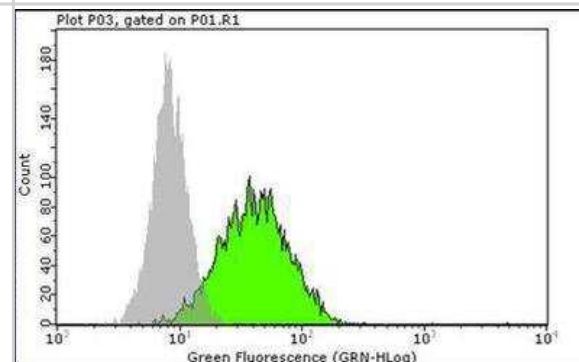
Western Blot: Alkaline Phosphatase, Tissue Non-Specific Antibody (TRA-2-49) [NB600-540] - Comparison on osteogenic-related proteins (OCN, BMP2, COL1a1, DDK1, ALP) for osteogenic micro-tissue and digested cells by Western blot. MT, osteogenic micro-tissue; DC, digested cells Image collected and cropped by CiteAb from the following publication (<https://stemcellres.biomedcentral.com/articles/10.1186/s13287-018-1064-1>) licensed under a CC-BY license.



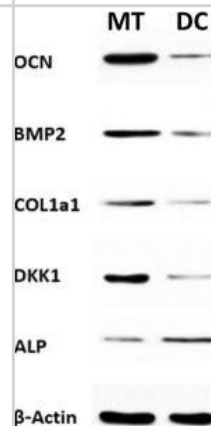
Immunocytochemistry/Immunofluorescence: Alkaline Phosphatase, Tissue Non-Specific Antibody (TRA-2-49) - BSA Free [NB600-540] - Confocal fluorescent analysis of A431 using anti-TRA-2-49 Mouse monoclonal antibody (Red). Actin filaments have been labeled with AlexaFluor(R) 488-Phalloidin (Green). Nucleus is stained with DAPI (Blue). Positive cytosol staining.



Flow Cytometry: Alkaline Phosphatase, Tissue Non-Specific Antibody (TRA-2-49) [NB600-540] - Analysis using anti-TRA-2-49. 2102Ep cells were stained with anti-TRA-2-49 antibody (Green) or isotype control antibody (grey).



Comparison on osteogenic-related proteins (OCN, BMP2, COL1a1, DDK1, ALP) for osteogenic micro-tissue and digested cells by Western blot. MT, osteogenic micro-tissue; DC, digested cells



## Publications

G Feng, P Zhang, J Huang, Y Yu, F Yang, X Zhao, W Wang, D Li, S Sun, X Niu, L Chai, J Li Sequential Release of Panax Notoginseng Saponins and Osteopractic Total Flavone from Poly (L-Lactic Acid) Scaffold for Treating Glucocorticoid-Associated Osteonecrosis of Femoral Head Journal of functional biomaterials, 2023-01-04;14(1):. 2023-01-04 [PMID: 36662078] (Flow Cytometry, Human)

Kamadjaja DB, Abidin ZZ, Diana R Et al. In Vivo Analyses of Osteogenic Activity and Bone Regeneration Capacity of Demineralized Freeze-Dried Bovine Bone Xenograft: A Potential Candidate for Alveolar Bone Fillers International journal of dentistry 2021-08-03 [PMID: 34394354] (IF/IHC, Rabbit)

Wu D, Wang Z, Wang J et al. Development of a micro-tissue-mediated injectable bone tissue engineering strategy for large segmental bone defect treatment Stem Cell Res Ther 2018-11-28 [PMID: 30486863] (WB, Rabbit)

Chou BK, Gu H, Gao Y et al. A facile method to establish human induced pluripotent stem cells from adult blood cells under feeder-free and xeno-free culture conditions: a clinically compliant approach. Stem Cells Transl Med 2015-04-01 [PMID: 25742692] (FLOW, Human)





### Novus Biologicals USA

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### Bio-Techne Canada

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### Bio-Techne Ltd

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### General Contact Information

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### Products Related to NB600-540

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NBL1-07487	Alkaline Phosphatase, Tissue Non-Specific Overexpression Lysate
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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