diagenode
A Hologic Company

TECHNICAL DATASHEET

PRODUCT NAME PADI4 polyclonal antibody		
Other names: PAD, HL-60 PAD, PDI4, PADI5, PDI5		
Cat. No. C15310075 (CS-075-100)	**Type:** Polyclonal	**Size:** 100 µl
Lot #: A63-001	**Source:** Rabbit	**Concentration:** not determined

Description: Polyclonal antibody raised in rabbit against human PADI4 (Protein-arginine deiminase type-4), using a KLH-conjugated synthetic peptide containing a sequence from the N-terminus.of the protein.

Specificity: Human: positive
Other species: not tested

Applications	Suggested dilution	References
ELISA	1:1,000-1:5,000	Fig 1
Western blotting	1:1,000	Fig 2

Purity: Whole antiserum from rabbit containing 0.05% azide.

Storage: Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

Precautions: This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Last data sheet update: April 7, 2010

Target description
Protein arginine deiminases catalyse the conversion of arginine residues in proteins to citrulline. PADI4 (UniProt/Swiss-Prot entry Q9UM07) catalyses the citrullination-deimination of Arg-8 and Arg-17 from histone H3 and Arg-3 from histone H4. This prevents their methylation by CARM1 and HRMT1L2/PRMT1, thereby repressing transcription. PADI4 also citrullinates EP300/P300 at 'Arg-2142', which favours its interaction with NCOA2/GRIP.

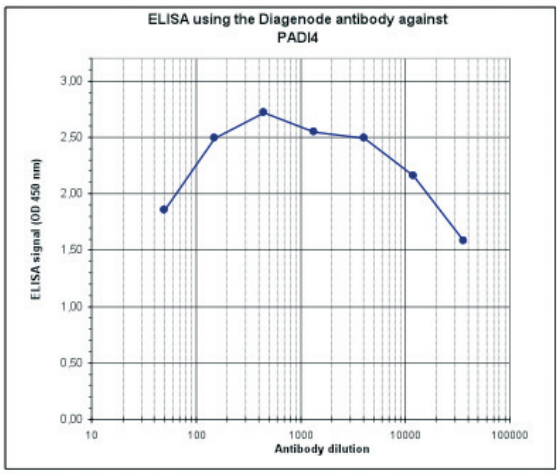

Figure 1

Determination of the antibody titer

To determine the titer of the antibody, an ELISA was performed using a serial dilution of Diagenode antibody directed against PADI4 (Cat. No. CS-075-100). The wells were coated with the peptide used for immunisation of the rabbit. By plotting the absorbance against the antibody dilution (Figure 1), the titer of the antibody was estimated to be 1: 40,200.

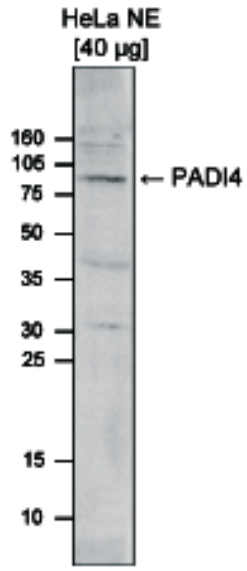

Figure 2

Western blot analysis using the Diagenode antibody directed against PADI4

Western blot was performed on nuclear extracts from HeLa cells (HeLa NE, 40 µg) with the Diagenode antibody against PADI4 (Cat. No. CS-075-100), diluted 1:1,000 in TBS-Tween containing 5% skimmed milk (Figure 2). The molecular weight marker (in kDa) is shown on the left; the location of the protein of interest is indicated on the right.