

Dot blot validation of antibodies
used in the ENCODE project:

Broad Institute ChIP-Seq Group

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Protocol

- Dot Blot Fabrication:
 - Suitably modified peptides modeled on histone tails were obtained from Abcam.
 - Each peptide is added to Bio-Dot apparatus at 0.01 and 0.1 ug / 50uL total volume (BioRad)
 - Let sit on rocker 60 minutes.
 - Pull through with vacuum, wash once with 100uL TBS and twice with 200uL TBSTw.
 - Remove membrane from Bio-Dot and transfer to 10mL Pierce SuperBlock in tray.
 - Place on rocker for 30 minutes.
 - Dump off SuperBlock.
- Antibody hybridization and imaging:
 - Add Primary Antibody in 10mL total volume.
 - Place on rocker for 30 minutes.
 - Wash 3 x 5 minutes in TBSTw.
 - Add secondary antibody diluted in SuperBlock in 10mL total volume.
 - Place on rocker for 30 minutes.
 - Wash 3 x 15 minutes in TBSTw, 1 x 10 minutes in TBS.
 - Image using ECL and a FluorChem Peltier-cooled camera (Cell Biosciences)

Antibody: Rabbit Polyclonal to Histone H3 (di methyl K4)

Vendor: Abcam

Immunogen: Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human Histone H3 di methylated at K4.

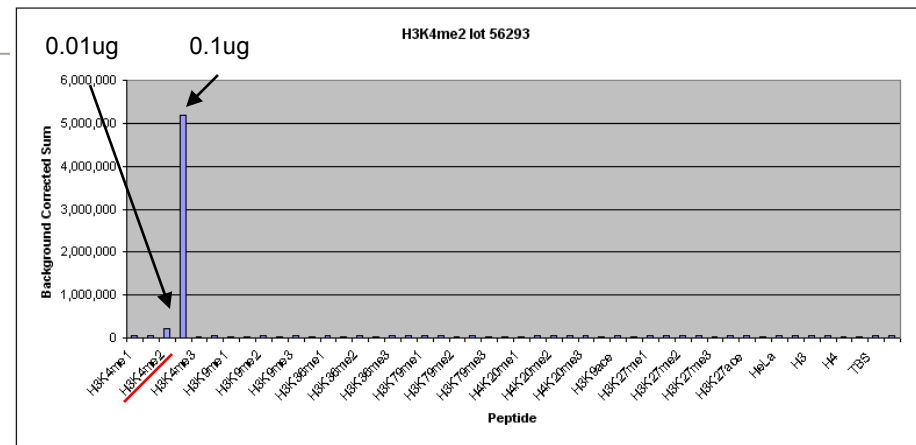
Product Number: ab7766

Lot Number: 56293

• H3K4me2



		Membrane Setup					
		1	2	3	4	5	6
A	K4m1 0.01ug	K4m2 0.01ug	K4m3 0.01ug	K9m1 0.01ug	K9m1 0.1ug	Hela 0.01ug	
B	K4m1 0.1ug	K4m2 0.1ug	K4m3 0.1ug	K9m2 0.01ug	K9m2 0.1ug	Hela 0.1ug	
C	K36m1 0.01ug	K36m2 0.01ug	K36m3 0.01ug	K9m3 0.01ug	K9m3 0.1ug	H3 0.01ug	
D	K36m1 0.1ug	K36m2 0.1ug	K36m3 0.1ug	K9ace 0.01ug	K9ace 0.1ug	H3 0.1ug	
E	K79m1 0.01ug	K79m2 0.01ug	K79m3 0.01ug	K27m1 0.01ug	K27m1 0.1ug	H4 0.01ug	
F	K79m1 0.1ug	K79m2 0.1ug	K79m3 0.1ug	K27m2 0.01ug	K27m2 0.1ug	H4 0.1ug	
G	K20m1 0.01ug	K20m2 0.01ug	K20m3 0.01ug	K27m3 0.01ug	K27m3 0.1ug	TBS	
H	K20m1 0.1ug	K20m2 0.1ug	K20m3 0.1ug	K27ace 0.01ug	K27ace 0.1ug	TBS	



Performed at Broad Institute

Protocol

- Add each peptide into BioDot at above concentrations in 50uL total volume
- Let sit on rocker 60 minutes
- Pull through with vacuum, wash once with 100uL TBS and twice with 200uL TBSTw
- Remove membrane from BioDot and transfer to 10mL Pierce SuperBlock in tray
- Place on rocker for 30 minutes
- Dump off SuperBlock and add Primary Antibody in 10mL total volume
- Place on rocker for 30 minutes
- Wash 3 x 5 minutes in TBSTw
- Add secondary antibody diluted in SuperBlock in 10mL total volume
- Place on rocker for 30 minutes
- Wash 1 x 15 minutes in TBSTw, 2 x 5 minutes in TBSTw and 1 x 5 minutes in TBS
- Develop in Fluorchem

Test Date 4/6/2010
User MC

Primary Antibody
H3K4me2

Vendor Abcam
Part # ab7766
Lot # 56293
Concentration 1 :2,000
Incubation Time 60m

Secondary Antibody
anti-rabbit

Vendor USB #72560
Part # 72560
Lot # 123941
Concentration 1 :20,000
Incubation Time 30m

Develop Time 5m