

ENCODE DCC Antibody Validation Document

Date of Submission

Name:

Email:

Lab

Antibody Name:

Target:

Company/
Source:

Catalog Number, database ID, laboratory

Lot Number

Antibody
Description:

Target
Description:

Species Target

Species Host

Validation Method #1

Validation Method #2

Purification
Method

Polyclonal/
Monoclonal

Vendor URL:

Reference (PI/
Publication
Information)

Please complete the following for antibodies to histone modifications:
*if your specifications are not listed in the drop-down box,
please write-in the appropriate information*

Histone Name

AA modified

AA Position

Modification

Validation #1
Analysis



Insert Validation Image (click here)



Validation #2
Analysis



Insert Validation Image (Click here)

Validation 2: Mass Spectrometry Analysis

ENCODE data standards recognizes various methodologies for secondary validation of antibodies. Among these methodologies is immunoprecipitation followed by mass spectrometry analysis. Briefly, HeLa whole cell lysates were immunoprecipitated using primary antibody, and the IP fraction was loaded on a 12% acrylamide gel and separated with a Bio-Rad PROTEAN II xi system. Gel was stained with Coomassie Blue in order to visualize marker bands. A gel fragment corresponding to the band indicated above in the western blot image was excised and sent to the University of Alabama at Birmingham Cancer Center Mass Spectrometry/Proteomics Shared Facility. There the sample was run on an LTQ XL Linear Ion Trap Mass Spectrometer with alternating collision-induced dissociation and electron-transfer dissociation. Peptides were identified using MASCOT (Matrix Science), with probability based matching at $p < 0.05$. As per ENCODE data standards, all MASCOT results are listed below, including common contaminants. Target protein is highlighted in bold font.

1. P14618 Pyruvate kinase isozymes M1/M2 n=2 Tax=Homininae RepID=KPYM_HUMAN
2. P08729 Keratin, type II cytoskeletal 7 n=1 Tax=Homo sapiens RepID=K2C7_HUMAN
3. UPI0001AE6926 UPI0001AE6926 related cluster n=1 Tax=Homo sapiens RepID=UPI0001AE6926
4. P08670 Vimentin n=2 Tax=Homo sapiens RepID=VIME_HUMAN
5. UPI00017BCE7F keratin, type I cytoskeletal 10 n=1 Tax=Homo sapiens RepID=UPI00017BCE7F
6. P17987 T-complex protein 1 subunit alpha n=2 Tax=Homininae RepID=TCPA_HUMAN
7. A8K3C3 T-complex protein 1 subunit delta n=1 Tax=Homo sapiens RepID=A8K3C3_HUMAN
8. P04264 Keratin, type II cytoskeletal 1 n=1 Tax=Homo sapiens RepID=K2C1_HUMAN
9. Q4R5E7 Brain cDNA, clone: QnpA-15907, similar to human non-POU domain containing, octamer-binding (NONO), n=1 Tax=Macaca fascicularis RepID=Q4R5E7_MACFA
10. B4DG39 Glucose-6-phosphate isomerase n=2 Tax=Homo sapiens RepID=B4DG39_HUMAN
11. B4DVJ0 Glucose-6-phosphate isomerase n=1 Tax=Homo sapiens RepID=B4DVJ0_HUMAN
12. Q99832 T-complex protein 1 subunit eta n=1 Tax=Homo sapiens RepID=TCPH_HUMAN
13. O43175 D-3-phosphoglycerate dehydrogenase n=1 Tax=Homo sapiens RepID=SERA_HUMAN
14. B5BTY7 T-complex protein 1 subunit beta n=1 Tax=Homo sapiens RepID=B5BTY7_HUMAN
15. P05787 Keratin, type II cytoskeletal 8 n=1 Tax=Homo sapiens RepID=K2C8_HUMAN
16. P02769 Serum albumin n=1 Tax=Bos taurus RepID=ALBU_BOVIN
17. UPI000179EC85 Serum albumin precursor (Allergen Bos d 6) (BSA). n=1 Tax=Bos taurus RepID=UPI000179EC85
18. B3KPS3 cDNA FLJ32131 fis, clone PEBLM2000267, highly similar to Tubulin alpha-ubiquitous chain n=1 Tax=Homo sapiens RepID=B3KPS3_HUMAN
19. P35908 Keratin, type II cytoskeletal 2 epidermal n=1 Tax=Homo sapiens RepID=K22E_HUMAN
20. B0YIW6 Archain 1, isoform CRA_a n=1 Tax=Homo sapiens RepID=B0YIW6_HUMAN
21. Q6DD88 Atlastin-3 n=1 Tax=Homo sapiens RepID=ATLA3_HUMAN
22. B4DNL5 cDNA FLJ59361, highly similar to Protein disulfide-isomerase (EC 5.3.4.1) n=1 Tax=Homo sapiens RepID=B4DNL5_HUMAN
23. UPI000059DB4B UPI000059DB4B related cluster n=1 Tax=Homo sapiens RepID=UPI000059DB4B
24. P35527 Keratin, type I cytoskeletal 9 n=1 Tax=Homo sapiens RepID=K1C9_HUMAN
25. Q9BUQ0 Polypyrimidine tract binding protein 1 n=1 Tax=Homo sapiens RepID=Q9BUQ0_HUMAN

26. P40227 T-complex protein 1 subunit zeta n=1 Tax=Homo sapiens RepID=TCPZ_HUMAN
27. C5IWW5 Trypsinogen n=1 Tax=Sus scrofa RepID=C5IWW5_PIG
28. P08243 Asparagine synthetase [glutamine-hydrolyzing] n=2 Tax=Homo sapiens RepID=ASNS_HUMAN
29. B3KWQ6 cDNA FLJ43599 fis, clone SMINT2017781, highly similar to PERIPHERIN n=1 Tax=Homo sapiens RepID=B3KWQ6_HUMAN
30. P04259 Keratin, type II cytoskeletal 6B n=1 Tax=Homo sapiens RepID=K2C6B_HUMAN
31. Q2Q9H2 Glucose-6-phosphate 1-dehydrogenase (Fragment) n=1 Tax=Homo sapiens RepID=Q2Q9H2_HUMAN
- 32. GB0001 Retinoid X Receptor, alpha, per hprd**
33. Q5XKE5 Keratin, type II cytoskeletal 79 n=1 Tax=Homo sapiens RepID=K2C79_HUMAN
34. O95747 Serine/threonine-protein kinase OSR1 n=1 Tax=Homo sapiens RepID=OXSR1_HUMAN
35. B2RBS8 cDNA, FLJ95666, highly similar to Homo sapiens albumin (ALB), mRNA n=1 Tax=Homo sapiens RepID=B2RBS8_HUMAN
36. UPI0001AE6B0B UPI0001AE6B0B related cluster n=1 Tax=Homo sapiens RepID=UPI0001AE6B0B
37. A5Z217 Mutant desmin n=1 Tax=Homo sapiens RepID=A5Z217_HUMAN
38. UPI000186CFF7 T-complex protein 1 subunit alpha, putative n=1 Tax=Pediculus humanus corporis RepID=UPI000186CFF7
39. O95678 Keratin, type II cytoskeletal 75 n=1 Tax=Homo sapiens RepID=K2C75_HUMAN
40. Q14CN4 Keratin, type II cytoskeletal 72 n=1 Tax=Homo sapiens RepID=K2C72_HUMAN
41. A2RRD3 RBM39 protein n=1 Tax=Homo sapiens RepID=A2RRD3_HUMAN
42. Q0IIN1 Keratin 77 n=1 Tax=Homo sapiens RepID=Q0IIN1_HUMAN
43. P61626 Lysozyme C n=4 Tax=Homininae RepID=LYSC_HUMAN
44. B4DKV4 cDNA FLJ60647, highly similar to Keratin, type II cytoskeletal 6B n=1 Tax=Homo sapiens RepID=B4DKV4_HUMAN
45. B4DGL0 cDNA FLJ53619, highly similar to Heat shock protein HSP 90-beta n=1 Tax=Homo sapiens RepID=B4DGL0_HUMAN
46. B4E1T1 cDNA FLJ54081, highly similar to Keratin, type II cytoskeletal 5 n=1 Tax=Homo sapiens RepID=B4E1T1_HUMAN
47. Q7Z2V5 Putative uncharacterized protein DKFZp686J01190 (Fragment) n=1 Tax=Homo sapiens RepID=Q7Z2V5_HUMAN
48. Q53G99 Beta actin variant (Fragment) n=1 Tax=Homo sapiens RepID=Q53G99_HUMAN
49. Q4R3D5 Testis cDNA clone: QtsA-17726, similar to human keratin protein K6irs (K6IRS2), n=1 Tax=Macaca fascicularis RepID=Q4R3D5_MACFA
50. UPI0001D3B45B UPI0001D3B45B related cluster n=1 Tax=Homo sapiens RepID=UPI0001D3B45B
51. B1AHM1 DEAD (Asp-Glu-Ala-Asp) box polypeptide 17 n=1 Tax=Homo sapiens RepID=B1AHM1_HUMAN
52. B4DFL1 Dihydrolipoyl dehydrogenase n=2 Tax=Homo sapiens RepID=B4DFL1_HUMAN
53. UPI0000E4FB5A keratin, type I cytoskeletal 13 isoform a n=1 Tax=Homo sapiens RepID=UPI0000E4FB5A
54. A8K2H9 cDNA FLJ78503, highly similar to Homo sapiens keratin 13 (KRT13), transcript variant 1, mRNA n=1 Tax=Homo sapiens RepID=A8K2H9_HUMAN
55. P78386 Keratin, type II cuticular Hb5 n=1 Tax=Homo sapiens RepID=KRT85_HUMAN
56. B4E0S6 cDNA FLJ55635, highly similar to pre-mRNA-splicing factor ATP-dependent RNA helicase DHX15 (EC 3.6.1.-) n=1 Tax=Homo sapiens RepID=B4E0S6_HUMAN
57. Q5LJ98 TROVE domain family, member 2 n=1 Tax=Homo sapiens RepID=Q5LJ98_HUMAN
58. Q5T6W1 Heterogeneous nuclear ribonucleoprotein K n=1 Tax=Homo sapiens RepID=Q5T6W1_HUMAN
59. Q59FN3 Acyl-Coenzyme A dehydrogenase family, member 9 variant (Fragment) n=1 Tax=Homo sapiens RepID=Q59FN3_HUMAN
60. UPI000186EB8A 26S protease regulatory subunit, putative n=1 Tax=Pediculus humanus corporis RepID=UPI000186EB8A

61. UPI000198CA76 UPI000198CA76 related cluster n=1 Tax=Homo sapiens
RepID=UPI000198CA76

62. UPI0001AE685C UPI0001AE685C related cluster n=1 Tax=Homo sapiens
RepID=UPI0001AE685C

63. UPI0001AE6AEA UPI0001AE6AEA related cluster n=1 Tax=Homo sapiens
RepID=UPI0001AE6AEA

64. Q2L9C1 Dha kinase/FMN cyclase splice variant n=1 Tax=Homo sapiens
RepID=Q2L9C1_HUMAN

65. UPI000186E8F0 tubulin beta-2 chain, putative n=1 Tax=Pediculus humanus corporis
RepID=UPI000186E8F0

66. UPI0000F6E6ED Elongator complex protein 3 (EC 2.3.1.48) (hELP3). n=1 Tax=Homo sapiens
RepID=UPI0000F6E6ED

67. P02533 Keratin, type I cytoskeletal 14 n=1 Tax=Homo sapiens RepID=K1C14_HUMAN

68. Q7Z3M3 Putative uncharacterized protein DKFZp686L04275 (Fragment) n=1 Tax=Homo sapiens
RepID=Q7Z3M3_HUMAN

69. B2R9U2 cDNA, FLJ94557, highly similar to Homo sapiens FK506 binding protein 4, 59kDa (FKBP4), mRNA n=1 Tax=Homo sapiens RepID=B2R9U2_HUMAN

70. Q6MZW0 Putative uncharacterized protein DKFZp686J11235 (Fragment) n=1 Tax=Homo sapiens
RepID=Q6MZW0_HUMAN

71. UPI0001AE6435 UPI0001AE6435 related cluster n=1 Tax=Homo sapiens
RepID=UPI0001AE6435

72. UPI0001AE74B4 UPI0001AE74B4 related cluster n=1 Tax=Homo sapiens
RepID=UPI0001AE74B4

73. B3KNX7 cDNA FLJ30666 fis, clone FCBBF1000627, highly similar to Serine/threonine-protein kinase PAK 1 (EC 2.7.11.1) n=1 Tax=Homo sapiens RepID=B3KNX7_HUMAN

74. B3KX11 cDNA FLJ44436 fis, clone UTERU2019706, highly similar to T-complex protein 1 subunit gamma n=1 Tax=Homo sapiens RepID=B3KX11_HUMAN

75. B2R7V4 cDNA, FLJ93619, highly similar to Homo sapiens PRP4 pre-mRNA processing factor 4 homolog (yeast) (PRPF4), mRNA n=1 Tax=Homo sapiens RepID=B2R7V4_HUMAN

76. Q4R9A4 Testis cDNA clone: QtsA-10416, similar to human DEAD (Asp-Glu-Ala-Asp) box polypeptide 3, X-linked(DDX3X), transcript variant 1, n=1 Tax=Macaca fascicularis
RepID=Q4R9A4_MACFA

77. P54136 Arginyl-tRNA synthetase, cytoplasmic n=2 Tax=Homo sapiens
RepID=SYRC_HUMAN

78. B2R7P8 cDNA, FLJ93545, highly similar to Homo sapiens 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase (ATIC), mRNA n=1 Tax=Homo sapiens
RepID=B2R7P8_HUMAN

79. B6ZGT6 Retinoid X receptor-gamma n=1 Tax=Homo sapiens RepID=B6ZGT6_HUMAN

80. UPI000013F740 T-complex protein 1 subunit zeta-2 n=1 Tax=Homo sapiens
RepID=UPI000013F740

81. UPI000186CBCD T-complex protein 1 subunit eta, putative n=1 Tax=Pediculus humanus corporis
RepID=UPI000186CBCD

82. UPI000186CFD7 tubulin beta chain, putative n=1 Tax=Pediculus humanus corporis
RepID=UPI000186CFD7

83. O75758 Pyruvate kinase n=1 Tax=Homo sapiens RepID=O75758_HUMAN

84. Q9BV61 TRAP1 protein (Fragment) n=1 Tax=Homo sapiens RepID=Q9BV61_HUMAN

85. UPI000186D735 heat shock protein 75 kDa, putative n=1 Tax=Pediculus humanus corporis
RepID=UPI000186D735

86. P00762 Anionic trypsin-1 n=1 Tax=Rattus norvegicus RepID=TRY1_RAT

87. UPI0000D62052 Torsin-1A-interacting protein 1. n=1 Tax=Homo sapiens
RepID=UPI0000D62052

88. UPI00001AECF3 UPI00001AECF3 related cluster n=1 Tax=Homo sapiens
RepID=UPI00001AECF3

89. UPI00005E77FA PREDICTED: similar to likely orthologue of Homo sapiens tubulin beta 1 (TUBB1) n=1 Tax=Monodelphis domestica RepID=UPI00005E77FA

90. Q9BSV4 SFPQ protein (Fragment) n=1 Tax=Homo sapiens RepID=Q9BSV4_HUMAN

91. B1ALY5 ROD1 regulator of differentiation 1 (S. pombe) n=2 Tax=Homo sapiens
RepID=B1ALY5_HUMAN
92. Q59G43 Polypyrimidine tract binding protein 2 variant (Fragment) n=1 Tax=Homo sapiens
RepID=Q59G43_HUMAN
93. B3KWR2 cDNA FLJ43638 fis, clone SPLEN2039845, highly similar to IMPORTIN ALPHA-1
SUBUNIT n=1 Tax=Homo sapiens RepID=B3KWR2_HUMAN
94. B4DSS8 cDNA FLJ55936, highly similar to Polypyrimidine tract-binding protein 2 n=1
Tax=Homo sapiens RepID=B4DSS8_HUMAN
95. UPI0000E5924D Histone deacetylase 2 (HD2). n=1 Tax=Homo sapiens
RepID=UPI0000E5924D
96. B7Z7J5 cDNA FLJ61673, highly similar to Retinoic acid receptor RXR-beta n=1 Tax=Homo
sapiens RepID=B7Z7J5_HUMAN
97. Q86Y46 Keratin, type II cytoskeletal 73 n=1 Tax=Homo sapiens RepID=K2C73_HUMAN
98. P08779 Keratin, type I cytoskeletal 16 n=1 Tax=Homo sapiens RepID=K1C16_HUMAN
99. Q7Z3Y9 Keratin, type I cytoskeletal 26 n=1 Tax=Homo sapiens RepID=K1C26_HUMAN
100. Q4R5K5 Brain cDNA, clone: Qf1A-10318, similar to human tyrosyl-tRNA synthetase
(YARS), n=1 Tax=Macaca fascicularis RepID=Q4R5K5_MACFA
101. Q8IWR8 Ribosomal protein L19 (Fragment) n=4 Tax=Mammalia
RepID=Q8IWR8_HUMAN
102. UPI0000D9FD95 keratin, type II cytoskeletal 4 n=1 Tax=Homo sapiens
RepID=UPI0000D9FD95
103. UPI000013EEC8 keratin, type II cytoskeletal 3 n=1 Tax=Homo sapiens
RepID=UPI000013EEC8
104. UPI000186DA7E T-complex protein 1 subunit zeta, putative n=1 Tax=Pediculus
humanus corporis RepID=UPI000186DA7E
105. A5JHP3 Dermcidin isoform 2 n=1 Tax=Homo sapiens RepID=A5JHP3_HUMAN
106. UPI000186D036 tubulin beta chain, putative n=1 Tax=Pediculus humanus corporis
RepID=UPI000186D036
107. Q01546 Keratin, type II cytoskeletal 2 oral n=1 Tax=Homo sapiens RepID=K22O_HUMAN
108. Q3SY84 Keratin, type II cytoskeletal 71 n=1 Tax=Homo sapiens
RepID=K2C71_HUMAN
109. Q0PHS2 Glucose-6-phosphate dehydrogenase (Fragment) n=1 Tax=Homo sapiens
RepID=Q0PHS2_HUMAN
110. B4DFM5 cDNA FLJ51779, highly similar to Vacuolar ATP synthase subunit B, brain
isoform (EC 3.6.3.14) n=1 Tax=Homo sapiens RepID=B4DFM5_HUMAN
111. B0QZK4 Heterochromatin protein 1, binding protein 3 (Fragment) n=1 Tax=Homo
sapiens RepID=B0QZK4_HUMAN
112. UPI00006C0D04 PREDICTED: similar to actin related protein 2/3 complex subunit 1B
n=1 Tax=Homo sapiens RepID=UPI00006C0D04
113. UPI000186E7A6 T-complex protein 1 subunit beta, putative n=1 Tax=Pediculus
humanus corporis RepID=UPI000186E7A6
114. B4DXJ7 cDNA FLJ53235, highly similar to Caseinolytic peptidase B protein n=1
Tax=Homo sapiens RepID=B4DXJ7_HUMAN