

## Align results

## Overview

## Trees

### Percent Identity Matrix

## Text Output

## Input Parameters

## API Request

Map IDs  Download  Resubmit

**"Similarity" highlight** ▼

Showing "Modified residue" in "sp|Q8WUI4|HDAC7\_HUMAN" ▾

View: ☐ Overview ☒ Wrapped

[illegible]

### Q8WUI4:Modified residue

Protein	Sequence	Score
<input type="checkbox"/> sp Q9BY41 HDAC8_HUMAN	- - - - -	-
<input type="checkbox"/> sp O15379 HDAC3_HUMAN	- - - - -	-
<input type="checkbox"/> sp Q92769 HDAC2_HUMAN	- - - - -	-
<input type="checkbox"/> sp Q13547 HDAC1_HUMAN	- - - - -	0
<input type="checkbox"/> sp Q9UBN7 HDAC6_HUMAN	- - - - -	0
<input checked="" type="checkbox"/> sp Q8WUI4 HDAC7_HUMAN	P - - - P V - - - - E P P P E P T L L A L Q R P Q R L H H H L	44
<input checked="" type="checkbox"/> sp Q9UKV0 HDAC9_HUMAN	M M M P V V D P V V R E K Q L Q Q E L L L I Q Q Q Q Q I Q K Q L	92
<input checked="" type="checkbox"/> sp Q9UQL6 HDAC5_HUMAN	A L V G S V D P T L R E Q Q L Q Q E L L A L K Q Q Q Q L Q K Q L	125
<input checked="" type="checkbox"/> sp P56524 HDAC4_HUMAN	F S L P V A E P A L R E Q Q L Q Q E L L A L K Q K Q Q I Q R Q I	120

**Q8WUI4:Modified residue**

Species	Accession	Protein Name	Sequence	Score
<input type="checkbox"/>	sp Q9BY41	HDAC8_HUMAN	- - - - -	0
<input type="checkbox"/>	sp O15379	HDAC3_HUMAN	- - - - -	0
<input type="checkbox"/>	sp Q92769	HDAC2_HUMAN	- - - - -	0
<input type="checkbox"/>	sp Q13547	HDAC1_HUMAN	- - - - -	0
<input type="checkbox"/>	sp Q9UBN7	HDAC6_HUMAN	- - - - - MTSTGQ - - - - - DSTTTR	17
<input checked="" type="checkbox"/>	sp Q8WUI4	HDAC7_HUMAN	- - - - - P - - - - - MRLSMDTPMPELQV	91
<input checked="" type="checkbox"/>	sp Q9UKV0	HDAC9_HUMAN	I KQQQELLEKEQKLEQQ - - - - - RQEQUEVER	149
<input checked="" type="checkbox"/>	sp Q9UQL6	HDAC5_HUMAN	A KQQQEMLAAKRQQELEQQRRQREQQRQEELK	189
<input checked="" type="checkbox"/>	sp P56524	HDAC4_HUMAN	MKHQQELLEHQRKLEH - - - - - RQEQUELEK	177

### Q8WUI4:Modified residue

Accession	Protein Name	Sequence	Score
<input type="checkbox"/> sp Q9BY41	HDAC8_HUMAN	- - - - -	0
<input type="checkbox"/> sp O15379	HDAC3_HUMAN	- - - - -	0
<input type="checkbox"/> sp Q92769	HDAC2_HUMAN	- - - - -	0
<input type="checkbox"/> sp Q13547	HDAC1_HUMAN	- - - - -	0
<input type="checkbox"/> sp Q9UBN7	HDAC6_HUMAN	- - - - -	29
<input checked="" type="checkbox"/> sp Q8WUI4	HDAC7_HUMAN	V I L K K Q Q A A L E R T - - V - - - H P N S P G I P Y R T L E	144

## Feedback









Q	<b>SS</b>	P	A	A	P	A	S	L	S	A	P	E	P	A	S	Q	A	R	V	L	<b>S</b>	S	S	E	I	P	A	R	-	541							
H	S	S	P	A	A	S	V	L	P	H	P	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	D	R	P	L	-	654	
Q	<b>SS</b>	P	A	A	P	G	G	M	K	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	D	Q	P	V	-	704	
Q	<b>SS</b>	P	A	S	A	T	F	P	V	S	V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	E	P	P	T	-	675

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AKIPKRA**S** MVHSLIEAYALHKQMRI VKPKVAS 92  
PMKPHRLAL THSLVLHYGLYKKMIV FKPYPQAS 84  
PMKPHRIRMT HNLLLN YGLYRKMEI YRPHKAT 91  
PMKPHRIRMT HNLLLN YGLYRKMEI YRPHKAN 90  
PEVPQRI LRIMCRLEELGLAGRC LTLTPRPAT 559  
PEHAGRIQS IWSRLQERGLRSQCECLRGRKAS 604  
PEHAGRIQS IWSRLQETGLLNKCERI QGRKAS 717  
PEHAGRIQS IWSRLQETGLLSKCERI RGRKAT 767  
PEHAGRIQS IWSRLQETGLRGKCECIRGRKAT 738

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- - - - S I E Y G L G Y D C P - - - - A T E G I F D Y A A - - - 140
- - - - L N A F N V G D D C P - - - - V F P G L F E F C S - - - 132
- - - - M Q R F N V G E D C P - - - - V F D G L F E F C Q - - - 139
- - - - M Q R F N V G E D C P - - - - V F D G L F E F C Q - - - 138
H R E - - - - - - - - - - - - - - S S N F D S I Y I C P S T F A 608
A G L L A Q R M F V M L P C G G V G V D T D T I W N E L H S S N 667
L G D D S Q K F F S S L P C G G L G V D S D T I W N E L H S S G 780
L G P I S Q K M Y A V L P C G G I G V D S D T V W N E M H S S S 830
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W	H	H	A	K	K	D	E	A	S	G	F	C	Y	L	N	D	A	V	L	G	I	L	R	L	R	R	-	-	-	K	F	201
L	H	H	A	K	K	F	E	A	S	G	F	C	Y	V	N	D	I	V	I	G	I	L	E	L	L	K	-	-	-	Y	H	193
L	H	H	A	K	K	S	E	A	S	G	F	C	Y	V	N	D	I	V	L	A	I	L	E	L	L	K	-	-	-	Y	H	200
L	H	H	A	K	K	S	E	A	S	G	F	C	Y	V	N	D	I	V	L	A	I	L	E	L	L	K	-	-	-	Y	H	199
G	H	H	A	E	Q	D	A	A	C	G	F	C	F	F	N	S	V	A	V	A	A	R	H	A	Q	T	I	S	G	H	A	672
G	H	H	A	D	H	S	T	A	M	G	F	C	F	F	N	S	V	A	I	A	C	R	Q	L	Q	Q	Q	S	-	K	A	730
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G	H	H	A	E	E	S	T	P	M	G	F	C	Y	F	N	S	V	A	V	A	A	K	L	L	Q	Q	R	L	-	S	V	863

K F S P G - F F P G - - T G D V S D V G L G K G R Y Y S V N V P 258  
K Y G N Y - F F P G - - T G D M Y E V G A E S G R Y Y C L N V P 250  
K Y G E Y - - F P G - - T G D L R D I G A G K G **K** Y Y A V N F P 256  
K Y G E Y - - F P G - - T G D L R D I G A G K G **K** Y Y A V N Y P 255  
R Y D H G T F F P M G D E G A S S Q I G R A A G T G F T V N V A 733  
R H D D G N F F P G - - S G A V D E V G A G S G E G F N V N V A 792  
R Y D E G N F F P G - - S G A P N E V G T G L G E G Y N I N I A 905  
R Y D N G N F F P G - - S G A P E E V G G G P G V G Y N V N V A 955  
R Y D D G N F F P G - - S G A P D E V G T G P G V G F N V N M A 925

### Q8WUI4:Modified residue

<input type="checkbox"/>	sp  <b>Q9BY41</b>  HDAC8_HUMAN
<input type="checkbox"/>	sp  <b>O15379</b>  HDAC3_HUMAN
<input type="checkbox"/>	sp  <b>Q92769</b>  HDAC2_HUMAN
<input type="checkbox"/>	sp  <b>Q13547</b>  HDAC1_HUMAN
<input type="checkbox"/>	sp  <b>Q9UBN7</b>  HDAC6_HUMAN
<input checked="" type="checkbox"/>	sp  <b>Q8WUI4</b>  HDAC7_HUMAN
<input checked="" type="checkbox"/>	sp  <b>Q9UKV0</b>  HDAC9_HUMAN
<input checked="" type="checkbox"/>	sp  <b>Q9UQL6</b>  HDAC5_HUMAN
<input checked="" type="checkbox"/>	sp  <b>P56524</b>  HDAC4_HUMAN

A V V L Q L G A D T I A G D - - P M C S F N M T P V G I G K C L 319  
 C I V L Q C G A D S L G C D - - R L G C F N L S I R G H G E C V 311  
 A V V L Q **C** G A D S L S G D - - R L G **C** F N L T V K G H A K C V 317  
 A V V L Q **C** G S D S L S G D - - R L G **C** F N L T I K G H A K C V 316  
 L V L V S A G F D A A R G D - - P L G G C Q V S P E G Y A H L T 795  
 L V L V S A G F D A A E G H P A P L G G Y H V S A K C F G Y M T 856  
 M V L V S A G F D A L E G H T P P L G G Y K V T A K C F G H L T 969  
 V V L V S A G F D A V E G H L S P L G G Y S V T A R C F G H L T 1019  
 V V L V S S G F D A V E G H P T P L G G Y N L S A R C F G Y L T 989

### Q8WUI4:Modified residue

<input type="checkbox"/>	sp  <a href="#">Q9BY41</a>  HDAC8_HUMAN
<input type="checkbox"/>	sp  <a href="#">O15379</a>  HDAC3_HUMAN
<input type="checkbox"/>	sp  <a href="#">Q92769</a>  HDAC2_HUMAN
<input type="checkbox"/>	sp  <a href="#">Q13547</a>  HDAC1_HUMAN
<input type="checkbox"/>	sp  <a href="#">Q9UBN7</a>  HDAC6_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">Q8WUI4</a>  HDAC7_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">Q9UKV0</a>  HDAC9_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">Q9UQL6</a>  HDAC5_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">P56524</a>  HDAC4_HUMAN

GV I L G K T L S S E I P D H E F F T A Y G P D Y V L E I T P S 377  
S L L V E E A I S E E L P Y S E Y F E Y F A P D F T L H P D V S 372  
A V A L D C E I P N E L P Y N D Y F E Y F G P D F K L H I S P S 377  
A V A L D T E I P N E L P Y N D Y F E Y F G P D F K L H I S P S 376  
R S L L G D P P - - - - - - - - - - - - - - - P L L T L P R P P L 840  
A A L L G N R V D P - L - - - - - - - - - - - S E E G W K Q K P N 904  
N A L L G N E L E P - L - - - - - - - - - - - A E D I L H Q S P N 1011  
S A L L S V E L Q P - L - - - - - - - - - - - D E A V L Q Q K P N 1067  
S A L L G N E L D P - L - - - - - - - - - - - P E K V L Q Q R P N 1037

### Q8WUI4:Modified residue

<input type="checkbox"/>	sp  <b>Q9BY41</b>  HDAC8_HUMAN
<input type="checkbox"/>	sp  <b>O15379</b>  HDAC3_HUMAN
<input type="checkbox"/>	sp  <b>Q92769</b>  HDAC2_HUMAN
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<input checked="" type="checkbox"/>	sp  <b>Q9UKV0</b>  HDAC9_HUMAN
<input checked="" type="checkbox"/>	sp  <b>Q9UQL6</b>  HDAC5_HUMAN
<input checked="" type="checkbox"/>	sp  <b>P56524</b>  HDAC4_HUMAN

- - - - - 377  
 P S V Q I H - - - - - D V P A D L L T Y D R T D E A D A E E 412  
 P G V Q M Q - - - - - A I P E D A V H E D S G D E D G E D - 420  
 P G V Q M Q - - - - - A I P E D A I P E E S G D E D E D D - 419  
 D R E G P S S S K L V T K K A P Q P A K P R - - - - L A E R M T 899  
 P D S W V - - P R - - - - V P - G A D K E - - - - E V E A V T 942  
 - - - - - 1011  
 L G R S L - - R E - - - - A Q - A G E T E - - - - E A E T V S 1114  
 A G R S L - - I E - - - - A Q - T C E N E - - - - E A E T V T 1076

### Q8WUI4:Modified residue

<input type="checkbox"/>	sp  <a href="#">Q9BY41</a>  HDAC8_HUMAN
<input type="checkbox"/>	sp  <a href="#">O15379</a>  HDAC3_HUMAN
<input type="checkbox"/>	sp  <a href="#">Q92769</a>  HDAC2_HUMAN
<input type="checkbox"/>	sp  <a href="#">Q13547</a>  HDAC1_HUMAN
<input type="checkbox"/>	sp  <a href="#">Q9UBN7</a>  HDAC6_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">Q8WUI4</a>  HDAC7_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">Q9UKV0</a>  HDAC9_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">Q9UQL6</a>  HDAC5_HUMAN
<input checked="" type="checkbox"/>	sp  <a href="#">P56524</a>  HDAC4_HUMAN

```

- - - - - FYDGDHNDK - - - - - 377
- - - - - FSDSEDEGEGRNVADHK - - - KGA 463
- - - - - FSDSEEEGEGGRKNSNFK - - - KAK 461
TAVVALTQDQPSEAATGGATLAQTISEAAIGG 963
- - - - - LVEEEEP MNL - - - - - 952
- - - - - - - - - - - - - - - - - 1011
- - - - - PME QEPAL - - - - - 1122
- - - - - PMEEEPPL - - - - - 1084

```

### Q8WUI4:Modified residue

☐  sp|Q9BY41|HDAC8\_HUMAN

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☐  sp|O15379|HDAC3\_HUMAN

..... 377

..... 428

<input type="checkbox"/>	sp Q92769 HDAC2_HUMAN	EEKTKEE - - - KPEAKGVKEE - - - - - - - - - - - - - - - -	488
<input type="checkbox"/>	sp Q13547 HDAC1_HUMAN	QTTSEDAVGGATLGQTTSEEAVGGATLAQTTS	482
<input type="checkbox"/>	sp Q9UBN7 HDAC6_HUMAN	- -	1027
<input checked="" type="checkbox"/>	sp Q8WUI4 HDAC7_HUMAN	- -	952
<input checked="" type="checkbox"/>	sp Q9UKV0 HDAC9_HUMAN	- -	1011
<input checked="" type="checkbox"/>	sp Q9UQL6 HDAC5_HUMAN	- -	1122
<input checked="" type="checkbox"/>	sp P56524 HDAC4_HUMAN	- -	1084

Q8WUI4:Modified residue

<input type="checkbox"/>	sp Q9BY41 HDAC8_HUMAN	- -	377
<input type="checkbox"/>	sp O15379 HDAC3_HUMAN	- -	428
<input type="checkbox"/>	sp Q92769 HDAC2_HUMAN	- -	488
<input type="checkbox"/>	sp Q13547 HDAC1_HUMAN	- -	482
<input type="checkbox"/>	sp Q9UBN7 HDAC6_HUMAN	DHQTTPPTSPVQGTTPQISPSLTLIGSLRTLLELG	1091
<input checked="" type="checkbox"/>	sp Q8WUI4 HDAC7_HUMAN	- -	952
<input checked="" type="checkbox"/>	sp Q9UKV0 HDAC9_HUMAN	- -	1011
<input checked="" type="checkbox"/>	sp Q9UQL6 HDAC5_HUMAN	- -	1122
<input checked="" type="checkbox"/>	sp P56524 HDAC4_HUMAN	- -	1084

Q8WUI4:Modified residue

<input type="checkbox"/>	sp Q9BY41 HDAC8_HUMAN	- -	377
<input type="checkbox"/>	sp O15379 HDAC3_HUMAN	- -	428
<input type="checkbox"/>	sp Q92769 HDAC2_HUMAN	- -	488
<input type="checkbox"/>	sp Q13547 HDAC1_HUMAN	- -	482
<input type="checkbox"/>	sp Q9UBN7 HDAC6_HUMAN	MQGSRGLTDQAIFYAVTPLPWCPHLVAVCPIP	1155
<input checked="" type="checkbox"/>	sp Q8WUI4 HDAC7_HUMAN	- -	952
<input checked="" type="checkbox"/>	sp Q9UKV0 HDAC9_HUMAN	- -	1011
<input checked="" type="checkbox"/>	sp Q9UQL6 HDAC5_HUMAN	- -	1122
<input checked="" type="checkbox"/>	sp P56524 HDAC4_HUMAN	- -	1084

Q8WUI4:Modified residue

<input type="checkbox"/>	sp Q9BY41 HDAC8_HUMAN	- -	377
<input type="checkbox"/>	sp O15379 HDAC3_HUMAN	- -	428
<input type="checkbox"/>	sp Q92769 HDAC2_HUMAN	- -	488
<input type="checkbox"/>	sp Q13547 HDAC1_HUMAN	- -	482
<input type="checkbox"/>	sp Q9UBN7 HDAC6_HUMAN	YINGHMLQH H GNSGHP LVLSYIDL SAWCY YC	1215
<input checked="" type="checkbox"/>	sp Q8WUI4 HDAC7_HUMAN	- -	952
<input checked="" type="checkbox"/>	sp Q9UKV0 HDAC9_HUMAN	- -	1011
<input checked="" type="checkbox"/>	sp Q9UQL6 HDAC5_HUMAN	- -	1122
<input checked="" type="checkbox"/>	sp P56524 HDAC4_HUMAN	- -	1084

Q8WUI4:Modified residue



Core data	Supporting data	Information
<a href="#">Proteins (UniProtKB)</a>	<a href="#">Literature citations</a>	<a href="#">Cite UniProt™</a>
<a href="#">Species (Proteomes)</a>	<a href="#">Taxonomy</a>	<a href="#">About &amp; Help</a>
<a href="#">Protein clusters (UniRef)</a>	<a href="#">Keywords</a>	<a href="#">UniProtKB manual</a>
<a href="#">Sequence archive (UniParc)</a>	<a href="#">Subcellular locations</a>	<a href="#">Technical corner</a>
	<a href="#">Cross-referenced databases</a>	<a href="#">Expert biocuration</a>
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