

BUILD MOTIF: Use these rules to build the Motif below from the 7 aligned Protein sequences.

Rules:

1. Build the motif position by position, vertically.
2. If fewer than 3 amino acid possibilities at a position include ALL three.
3. If 4 or more, put an X at that position.

Length (6 to 10):

RESET

MAKE MOTIF MATCH

Quiz Mode

Protein 1	A	L	N	V	K	K
Protein 2	C	M	N	V	K	S
Protein 3	W	N	N	V	K	S
Protein 4	F	L	N	V	K	K
Protein 5	G	N	N	V	K	K
Protein 6	T	M	N	V	K	S
Protein 7	I	N	N	V	K	K

Motif : x - [MLN] - N - V - K - [KS]

This motif is made from alignment above.

The following protein sequences match the profile:

Sequence 1	K	L	N	V	K	K
Sequence 2	P	M	N	V	K	S
Sequence 3	E	M	N	V	K	K
Sequence 4	E	L	N	V	K	K
Sequence 5	L	L	N	V	K	K

All these sequences match the Motif. Why?

MAKE MOTIF MATCH creates sequences that match a given motif.

Length (6 to 10):

Motif : **K** -[PKY]- Q -[GQW]-[QGP]-[HC]

Protein 1 **K**

Protein 2

Protein 3

Trace Button
Makes Matches

Length (6 to 10):

6

RESET






MAKE MOTIF MATCH

Quiz Mode

Protein 1	Y	N	L	G	P	E
Protein 2	Y	S	L	G	P	Y
Protein 3	Y	I	L	G	P	Y
Protein 4	Y	Y	L	G	P	F
Protein 5	Y	V	L	G	P	Y
Protein 6	Y	C	L	G	P	Y
Protein 7	Y	F	L	G	P	Y

In Quiz Mode,
Type motif
pattern in boxes.
Hit "Check" to
evaluate.

Motif : Y - NIS - L - G - P - Y 

Which protein sequence matches the profile?							YES	NO	
Sequence 1	Y	V	L	G	P	Y	<input checked="" type="radio"/>	<input type="radio"/>	
Sequence 2	Y	F	L	G	P	E	<input checked="" type="radio"/>	<input type="radio"/>	
Sequence 3	Y	W	L	G	P	V	<input checked="" type="radio"/>	<input type="radio"/>	
Sequence 4	Y	M	L	G	P	E	<input checked="" type="radio"/>	<input type="radio"/>	
Sequence 5	Y	N	L	A	P	E	<input type="radio"/>	<input type="radio"/>	

The second part asks if these sequences match the motif profile. Use the radio buttons to answer.