

# Blind approach

Spike height

Small 44	Medium 5	Large 7	No spikes 6
1, 2, 4, 6, 7, 8, 9, 12, 13, 14, 16, 17, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 31, 32, 33, 34, 35, 41, 43, 44, 45, 47, 48, 49, 50, 51, 53, 55, 57, 58, 59, 60, 61, 62	11, 30, 37, 39, 42	3, 15, 18, 46, 52, 54, 56	5, 7, 10, 26, 36, 38, 40

Is the interneuron reacting to T-cell spikes?

Y 38	N 6	Y 5
1, 2, 4, 6, 7, 8, 9, 12, 13, 14, 17, 19, 21, 22, 23, 24, 25, 27, 28, 29, 32, 33, 34, 35, 41, 43, 44, 45, 47, 48, 49, 51, 53, 55, 57, 58, 61, 62	16, 20*, 31, 50*, 59, 60	11, 37, 39, 42

Y 7
3, 15, 18, 46, 52, 54, 56

Y 5	N 1
10, 26, 36, 38, 40	5*

Is the T-cell showing a graded hyperpolarizing potential (voltage step) for hyperpolarizing interneuron stimulations?

Y 27	N 11	Y 1	N 5	Y 4	N 1
1, 2, 4, 6, 8, 9, 12, 13, 14, 21, 22, 23, 24, 25, 32, 33, 35, 41, 43, 44, 45, 47, 48, 49, 55, 61, 62	7, 17, 19, 27, 28, 29, 34, 51, 53, 57, 58	16	20, 31, 50, 59, 60	11, 37, 39, 42	30

Y 7
3, 15, 18, 46, 52, 54, 56

Y 4	N 1	Y 1
10, 36, 38, 40	26	5

Is the interneuron showing graded potentials (voltage steps) for stimulations of the T-cell?

Y 6	N 21	N 11	N 1	N 5	N 4	N 1
2, 6, 9, 32, 33, 62	1, 4, 8, 12, 13, 14, 21, 22, 23, 24, 25, 35, 41, 43, 44, 45, 47, 48, 49, 55, 61	7, 17, 19, 27, 28, 29, 34, 51, 53, 57, 58	16	20, 31, 50, 59, 60	11, 37, 39, 42	30

N 7
3, 15, 18, 46, 52, 54, 56

Y 1	N 3
40	10, 36, 38

N 1	Y 1
26	5

Is there a fast connection from T-cell to interneuron?

Y 5	N 1	Y 18	N 3	Y 1	N 10	N 1	N 5	N 4	N 1
6, 9, 32, 35, 62	1	1, 4, 8, 13, 14, 21, 22, 23, 25, 12, 35, 24, 41, 44, 43, 45, 47, 48, 49, 55, 61	2	19	7, 17, 27, 28, 29, 34, 51, 53, 57, 58	16	20, 31, 50, 59, 60	11, 37, 39, 42	30

Y 7
3, 15, 18, 46, 52, 54, 56

Y 1	Y 2	N 1
40	10, 36, 38	26

N 1	N 1
26	5

Packages 1 and 3	Package 2	Packages 4 and 6	Package 5
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\*For 5, 20 and 50 the T cell is not spiking

Package

Packages 1 and 3 23
2, 11, 12, 16, 17, 19, 20, 22, 23, 24, 26, 29, 31, 37, 39, 42, 44, 50, 51, 57, 58, 59, 60

Spike height

Small 18	Medium 4	Large 0	No spikes 1
2, 12, 16, 17, 19, 20, 22, 23, 24, 29, 31, 44, 50, 51, 57, 58, 59, 60	11, 37, 39, 42		26

Is the interneuron reacting to T cell spikes?

Y 12	N 6	Y 4
2, 12, 17, 19, 22, 23, 24, 29, 44, 51, 57, 58	16, 20*, 31, 50*, 59, 60	11, 37, 39, 42

Y 1
26

Is the T cell showing a graded hyperpolarizing potential (voltage step) for hyperpolarizing interneuron stimulations?

Y 6	N 6	Y 1	N 5	Y 4
2, 12, 22, 23, 24, 44	17, 19, 29, 51, 57, 58	16	20, 31, 50, 59, 60	11, 37, 39, 42

N 1
26

Is the interneuron showing graded potentials (voltage steps) for stimulations of the T cell?

Y 1	N 5	N 6	N 1	N 5	N 4
2	12, 22, 23, 24, 44	17, 19, 29, 51, 57, 58	16	20, 31, 50, 59, 60	11, 37, 39, 42

N 1
26

Is there a fast connection from T cell to interneuron?

N 1	Y 2	N 3	Y 1	N 5	N 1	N 5	N 4
2	12, 22, 23, 44	17, 19, 29, 51, 57, 58	16	20, 31, 50, 59, 60	11, 37, 39, 42		

N 1
26

157 157 157      157 159      159      159      162  
 157 157      159           159      162  
 159      162      159      162  
          159      159      162  
               159      159

159

Interneurons of type 159 elicited IPSPs in T-cells for positive stimuli  
 16, 17, 20, 26, 29, 31, 43, 50, 57, 58, 59

\*For 20 and 50 the T-cell is not spiking

Package

Package 2 20
3, 4, 5, 6, 8, 10, 14, 15, 18, 25, 30, 32, 43, 45, 46, 52, 53, 54, 56, 61

Spike height

Small 10	Medium 1	Large 7	No spikes 2
4, 6, 8, 14, 25, 32, 43, 45, 53, 61	30	3, 15, 18, 46, 52, 54, 56	5, 10

Is the interneuron reacting to T cell spikes?

Y 10	Y 1	Y 7	Y 1	N 1
4, 6, 8, 14, 25, 32, 43, 45, 53, 61	30	3, 15, 18, 46, 52, 54, 56	10	5*

Is the T cell showing a graded hyperpolarizing potential (voltage step) for hyperpolarizing interneuron stimulations?

Y 9	N 1	N 1	Y 7	Y 1	Y 1
4, 6, 8, 14, 25, 32, 43, 45, 61	53	30	3, 15, 18, 46, 52, 54, 56	10	5

Is the interneuron showing graded potentials (voltage steps) for stimulations of the T cell?

Y 2	N 7	N 1	N 7	N 1	Y 1
6, 32	4, 8, 14, 25, 43, 45, 61	53	30	3, 15, 18, 46, 52, 54, 56	10
6, 32		53	30	3, 15, 18, 46, 52, 54, 56	10

Is there a fast connection from T cell to interneuron?

Y 2	Y 7	N 1	N 1	Y 7	Y 1	N 1
6, 32	4, 8, 14, 25, 43, 45, 61	53	30	3, 15, 18, 46, 52, 54, 56	10	5

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212

201-  
203

\*For 5 the T cell is not spiking

Package

Packages 4 and 6 8 7, 21, 27, 28, 34, 36, 38, 40
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Spike height

Small 5 7, 21, 27, 28, 34	Medium 0	Large 0	No spikes 3 36, 38, 40
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Is the interneuron reacting to T cell spikes?

Y 5 7, 21, 27, 28, 34		Y 3 36, 38, 40
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Is the T cell showing a graded hyperpolarizing potential (voltage step) for hyperpolarizing interneuron stimulations?

Y 1 21	N 4 7, 27, 28, 34		Y 3 36, 38, 40
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Is the interneuron showing graded potentials (voltage steps) for stimulations of the T cell?

N 1 21	N 4 7, 27, 28, 34		Y 1 40	N 2 36, 38
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Is there a fast connection from T cell to interneuron?

Y 1 21	N 4 7, 27, 28, 34		Y 1 40	Y 1 36	N 1 38
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60-  
61

60-  
61

60-  
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60- 60-  
61 61

Package

Package 5 11
1, 9, 13, 33, 35, 41, 47, 48, 49, 55, 62

Spike height

Small 11	Medium 0	Large 0	No spikes 0
1, 9, 13, 33, 35, 41, 47, 48, 49, 55, 62			

Is the interneuron reacting to T cell spikes?

Y 11			
1, 9, 13, 33, 35, 41, 47, 48, 49, 55, 62			

Is the T cell showing a graded hyperpolarizing potential (voltage step) for hyperpolarizing interneuron stimulations?

Y 11			
1, 9, 13, 33, 35, 41, 47, 48, 49, 55, 62			

Is the interneuron showing graded potentials (voltage steps) for stimulations of the T cell?

Y 3	N 8			
9, 33, 62	1, 13, 35, 41, 47, 48, 49, 55			

Is there a fast reaction of the interneuron to a T cell spike?

Y 3	Y 8			
9, 33, 62	1, 13, 35, 41, 47, 48, 49, 55			