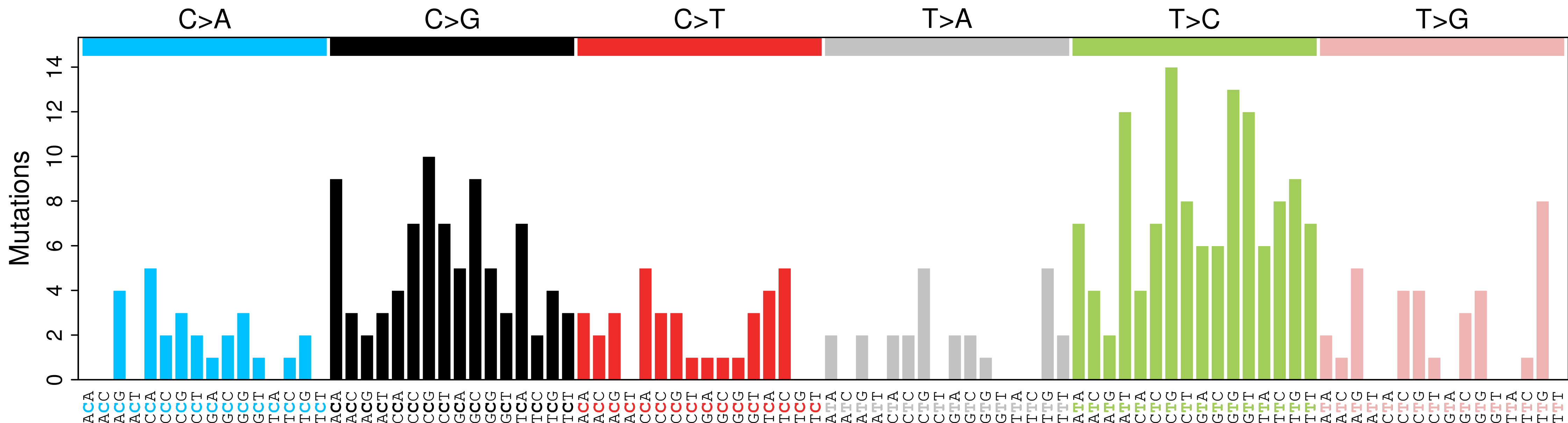
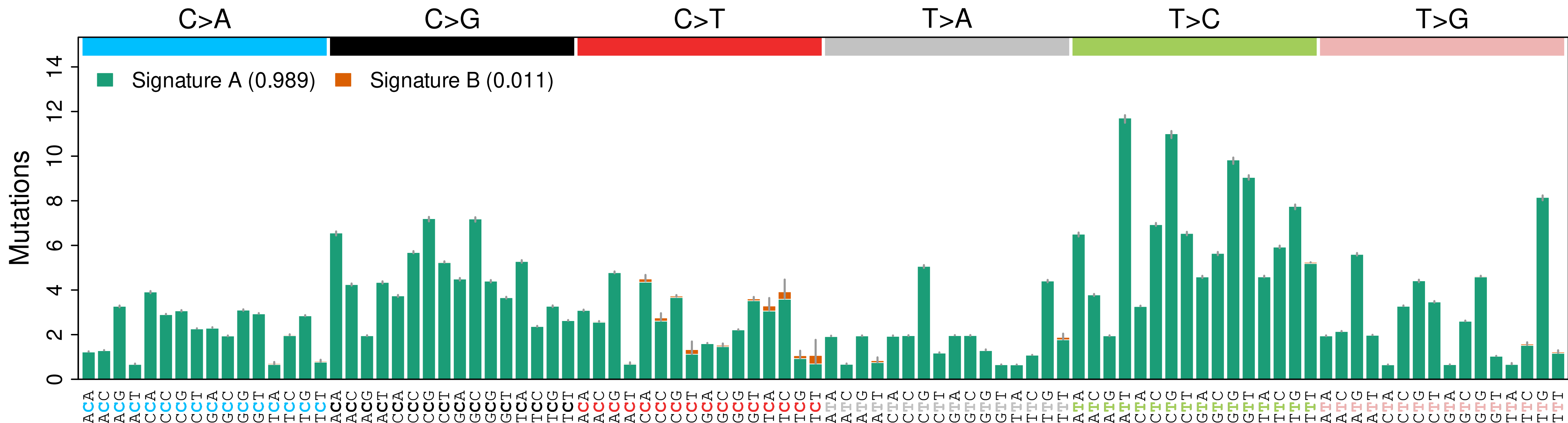


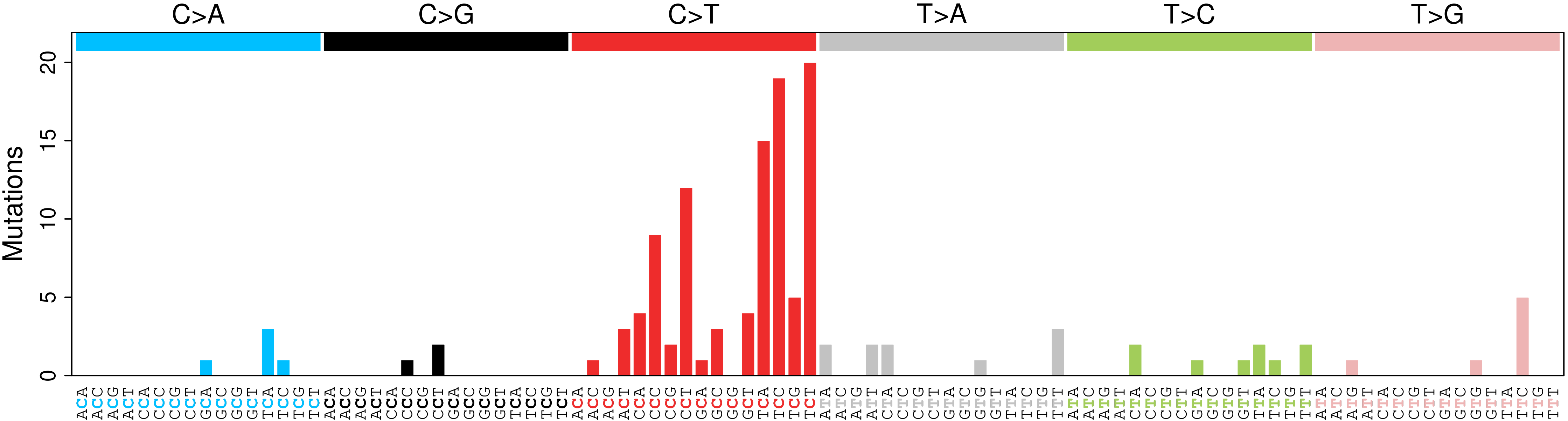
CATD292a (327 mutations)



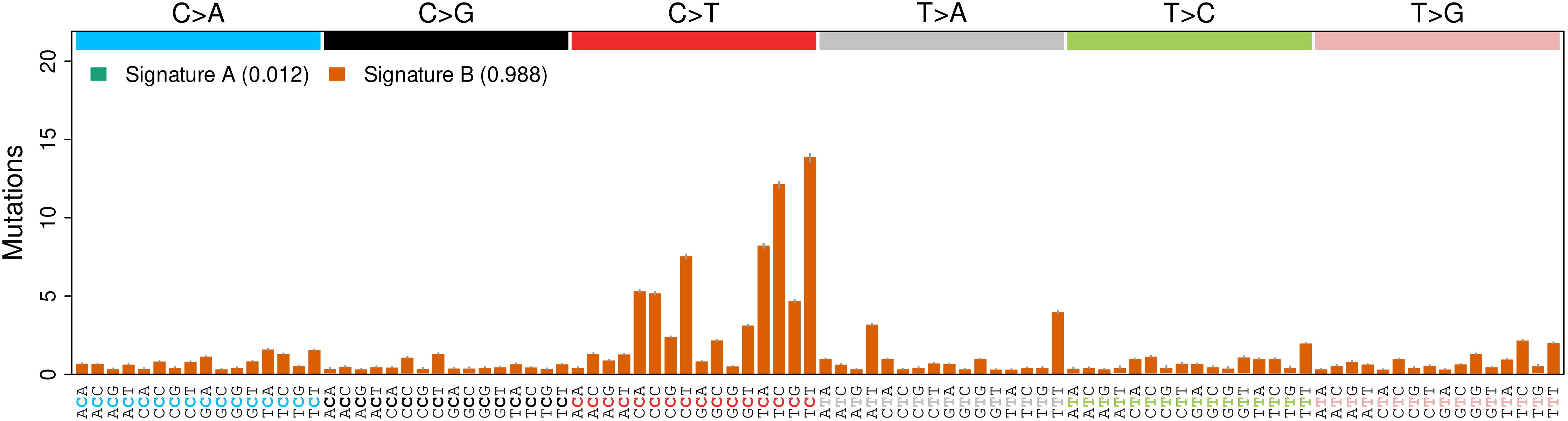
Reconstructed spectrum (cosine similarity = 0.975)



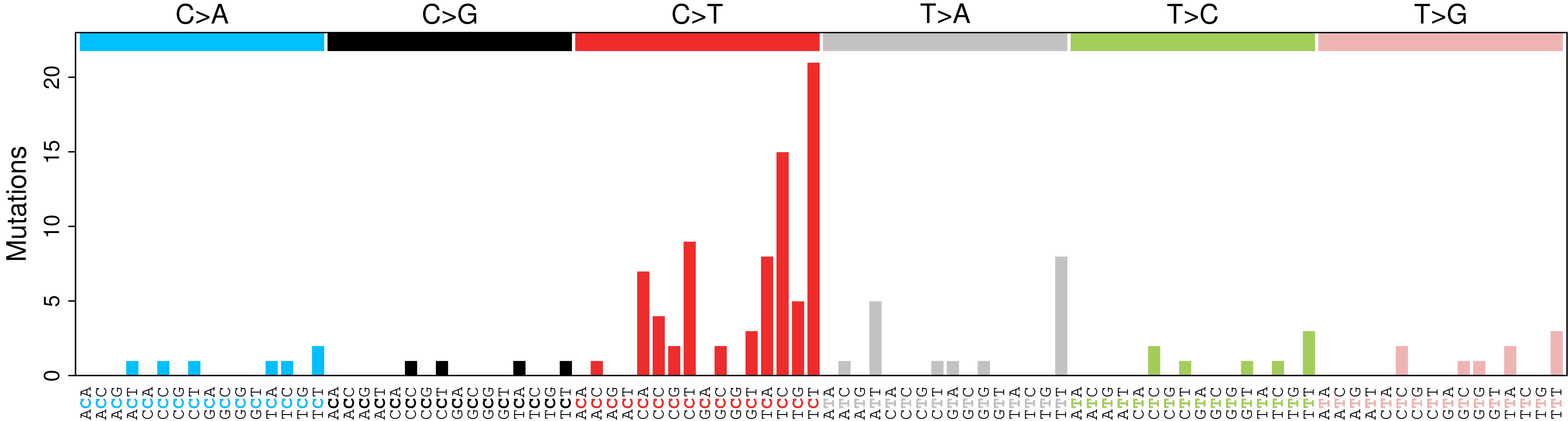
CATD0653a (132 mutations)



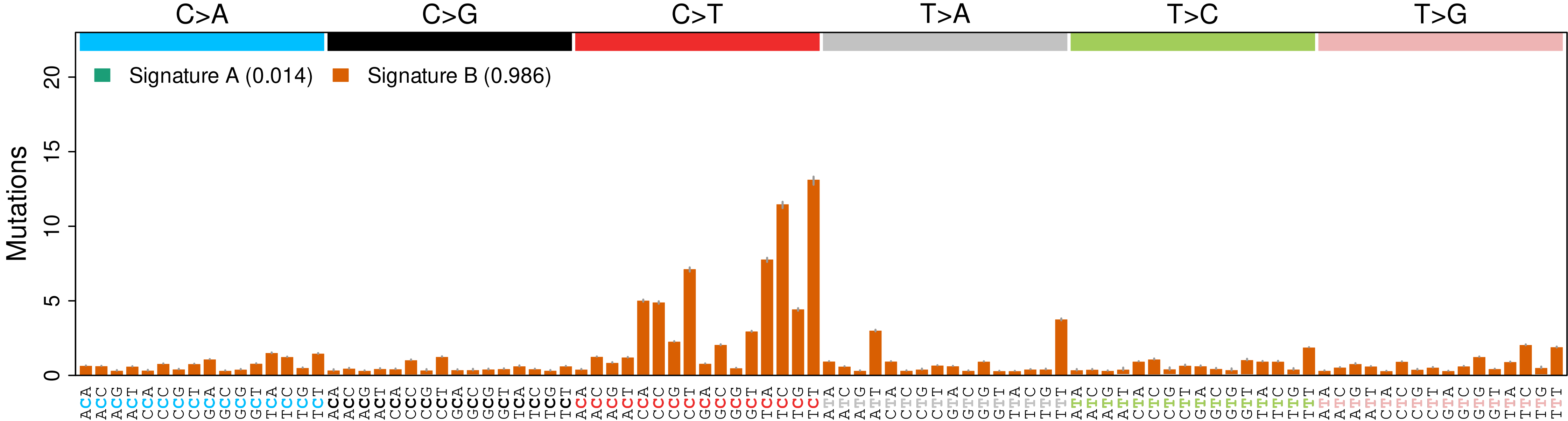
Reconstructed spectrum (cosine similarity = 0.958)



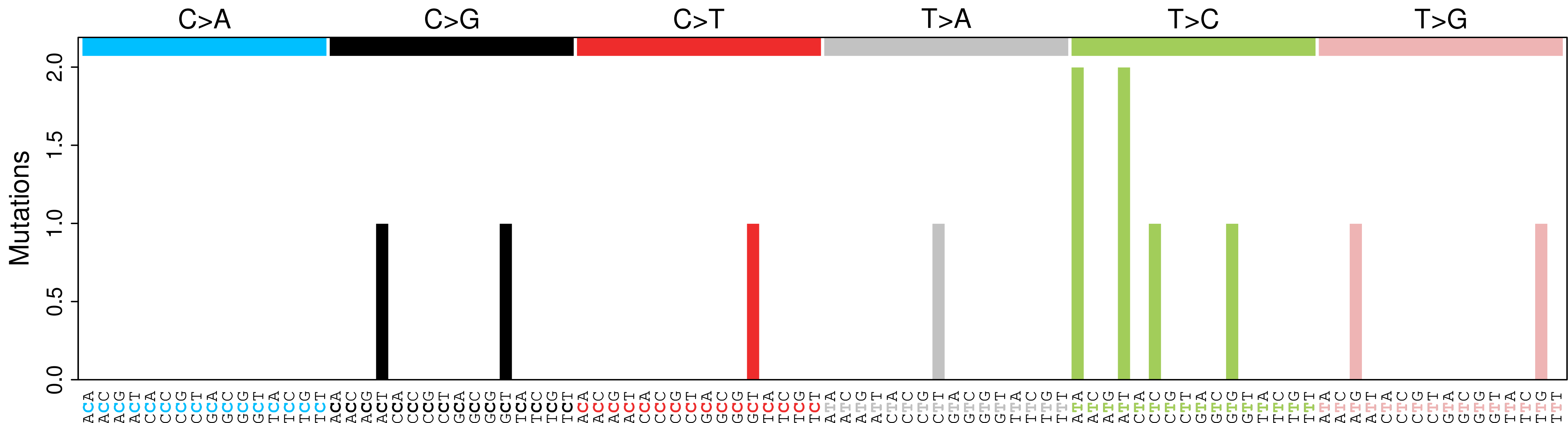
CATD294a (122 mutations)



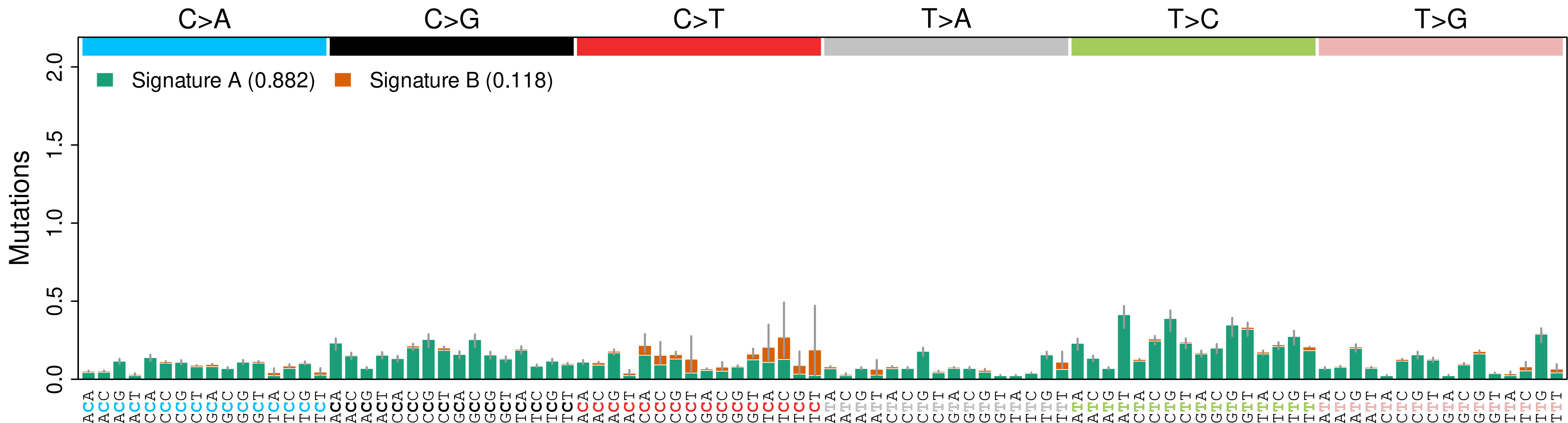
Reconstructed spectrum (cosine similarity = 0.961)



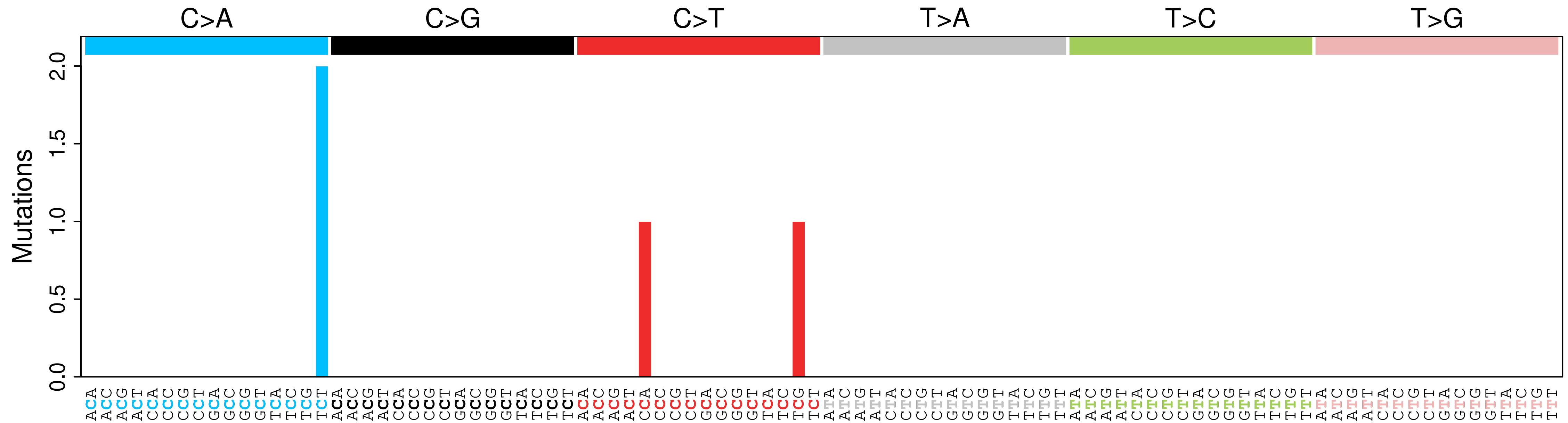
CATD283a (12 mutations)



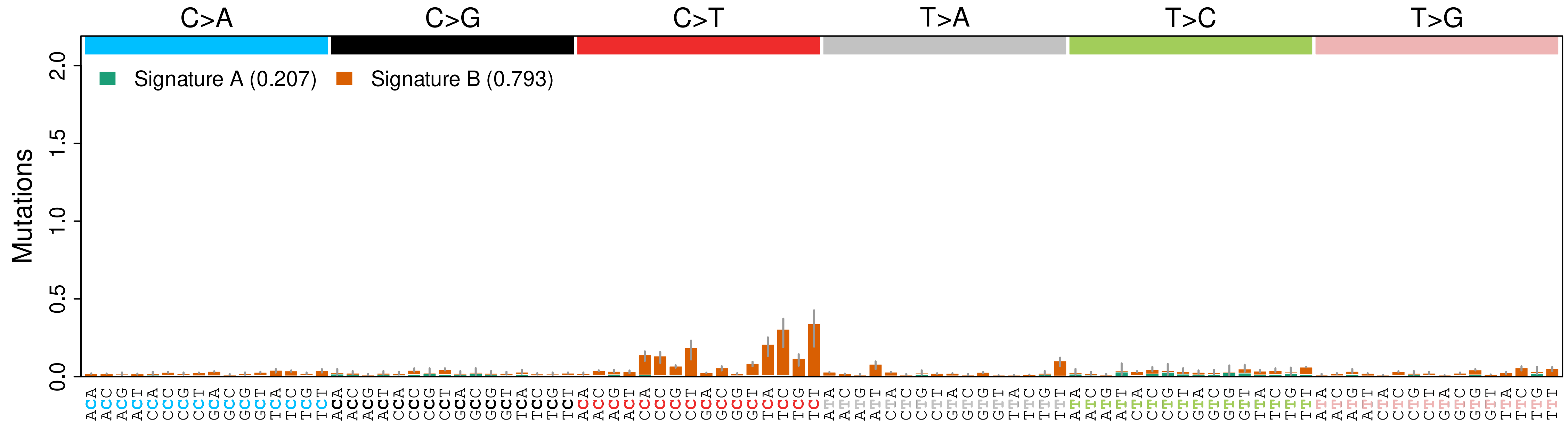
Reconstructed spectrum (cosine similarity = 0.468)



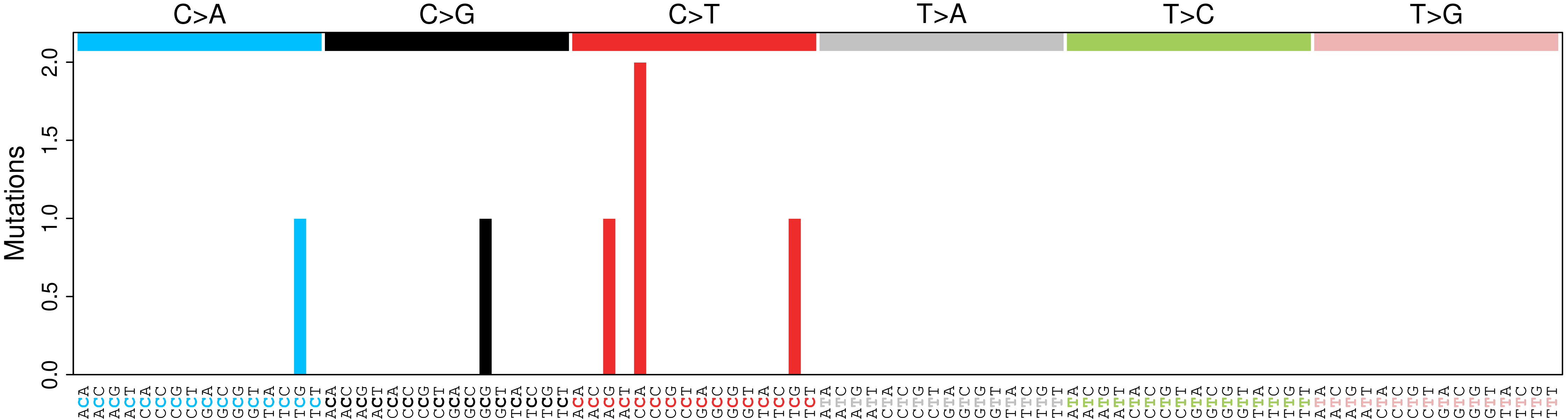
### CATD0645a (4 mutations)



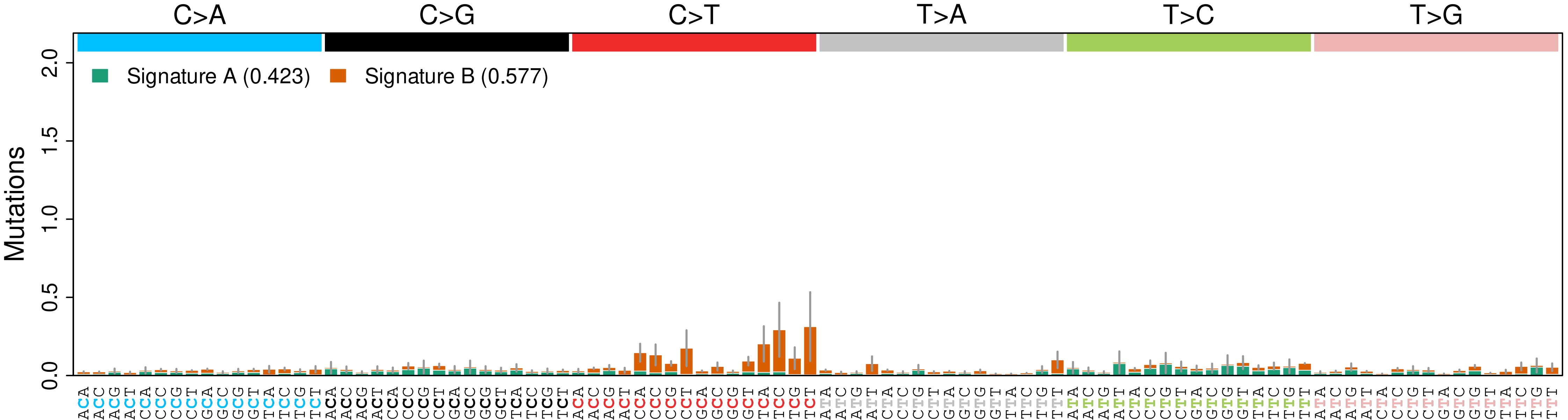
### Reconstructed spectrum (cosine similarity = 0.208)



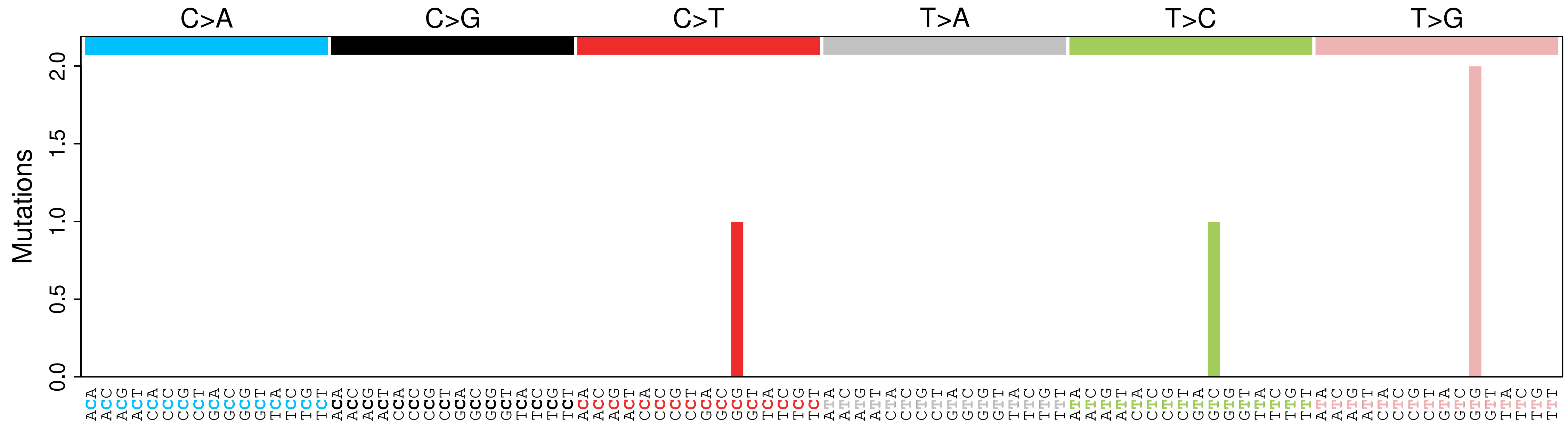
CATD0670a (6 mutations)



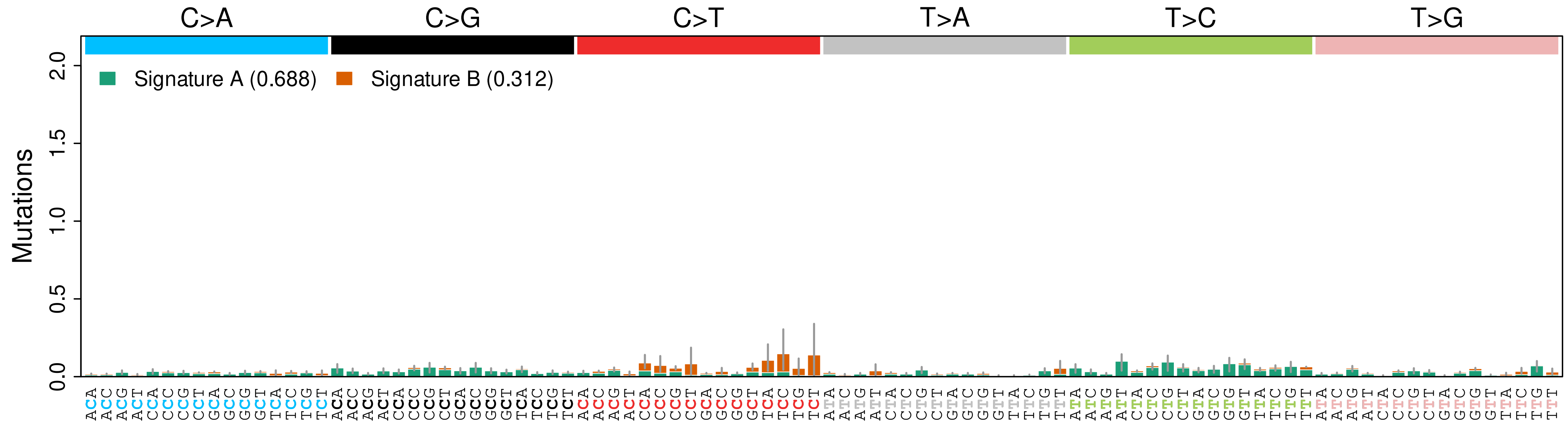
Reconstructed spectrum (cosine similarity = 0.264)



### CATD0650a (4 mutations)

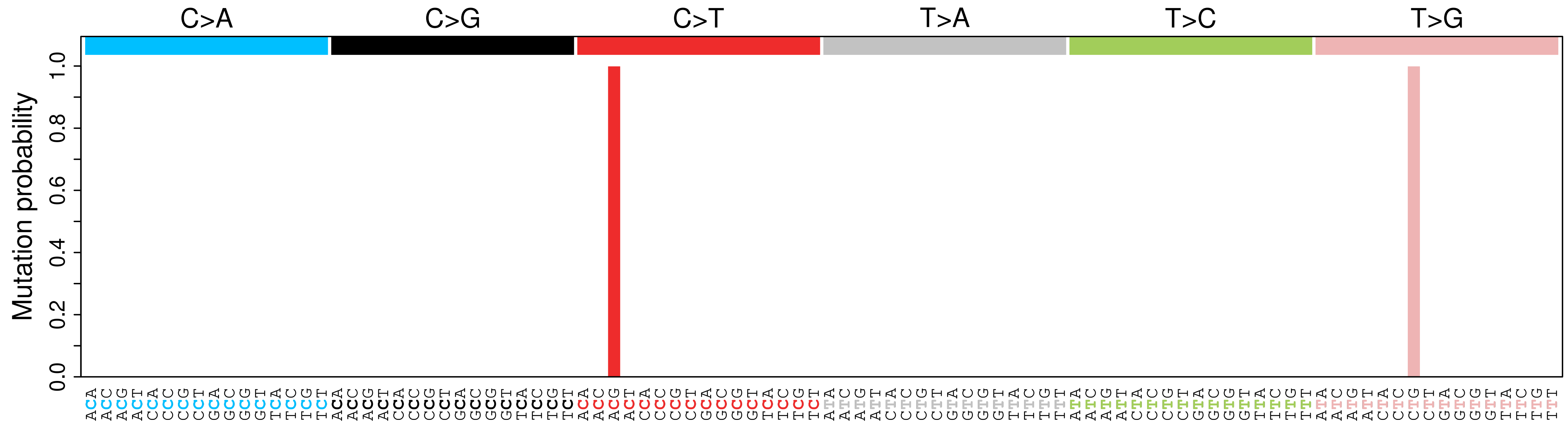


### Reconstructed spectrum (cosine similarity = 0.151)

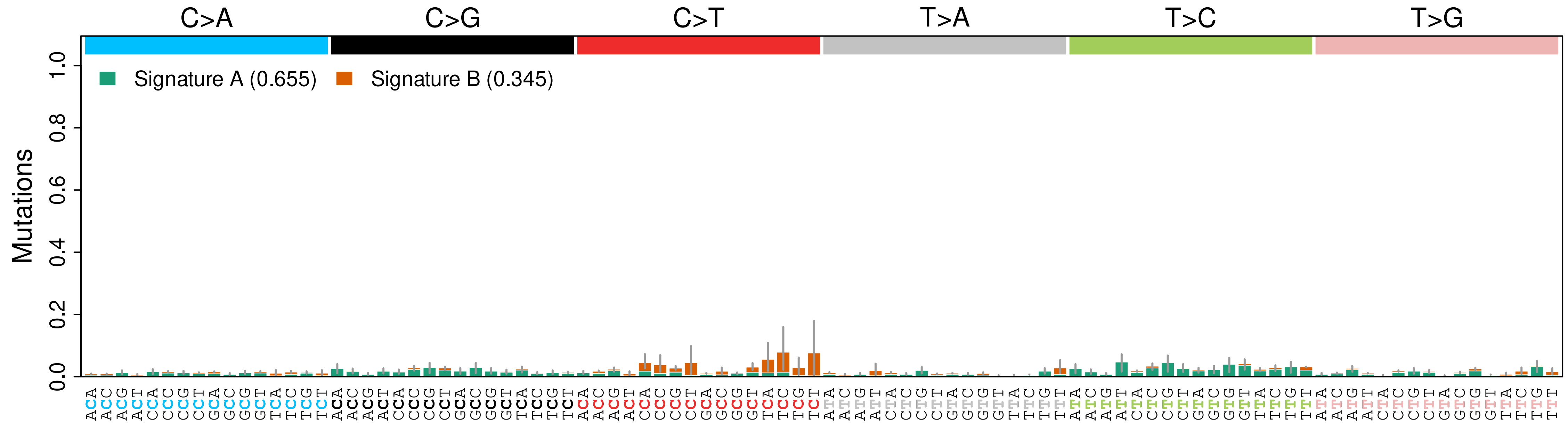




# CATD289a

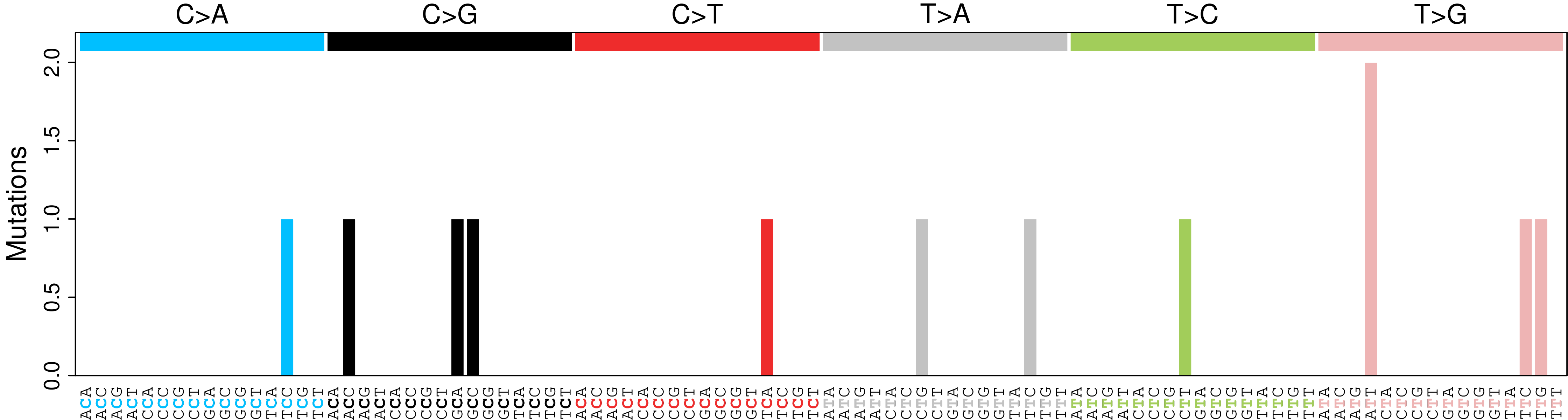


### Reconstructed spectrum (cosine similarity = 0.127)

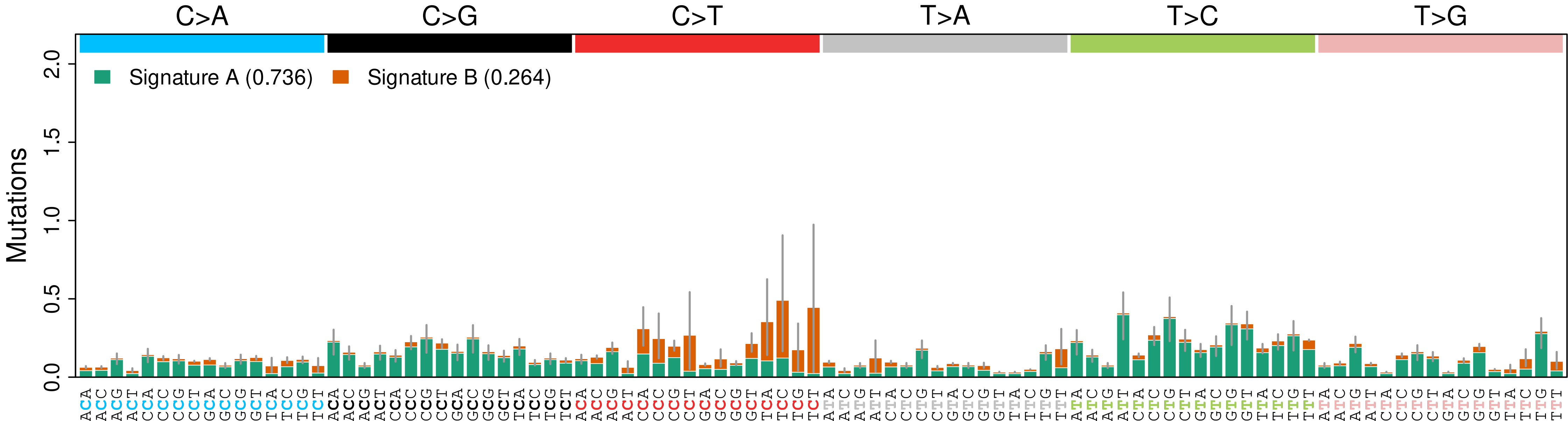




CATD0144a (12 mutations)

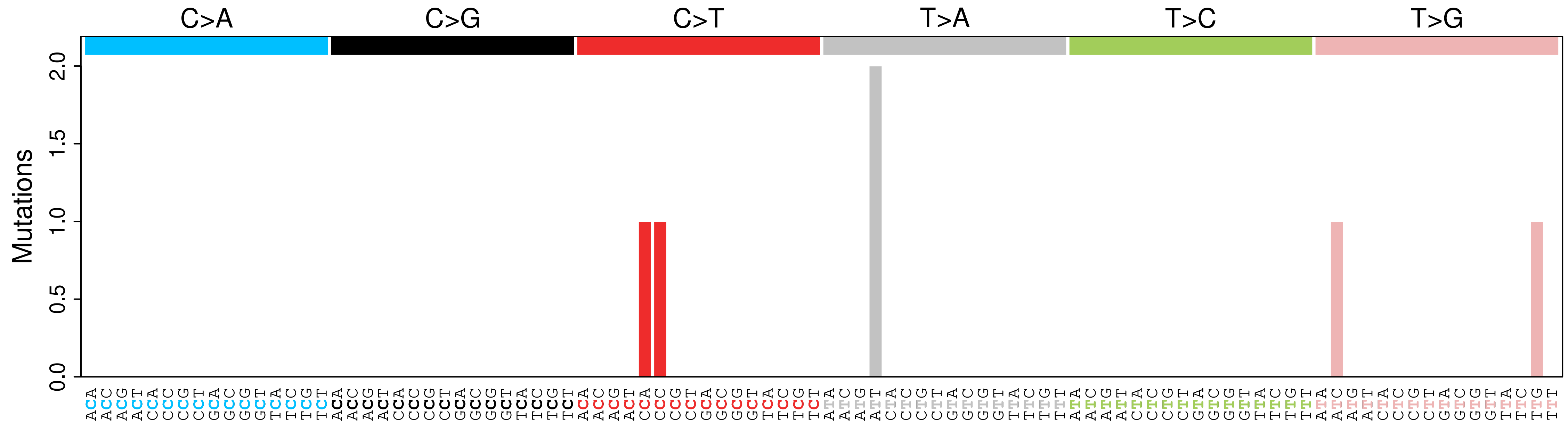


Reconstructed spectrum (cosine similarity = 0.313)

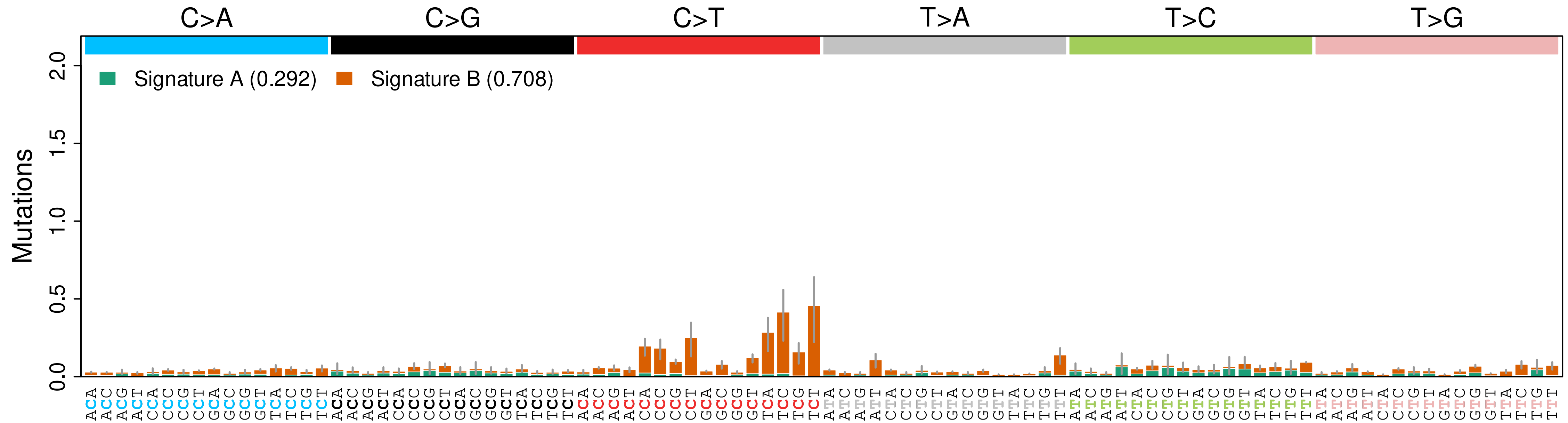




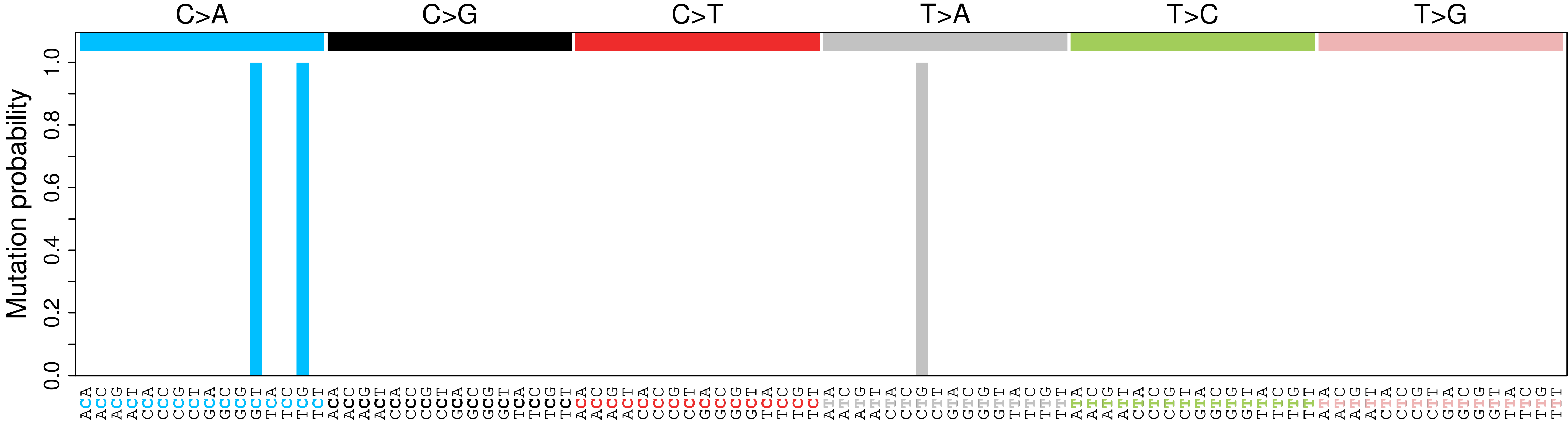
### CATD0668a (6 mutations)



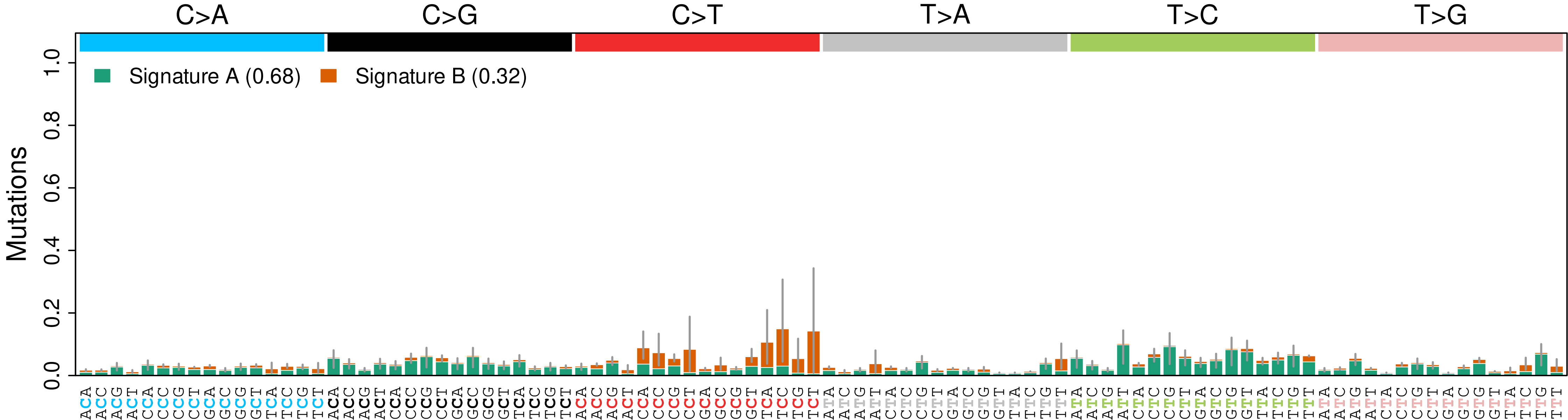
### Reconstructed spectrum (cosine similarity = 0.262)



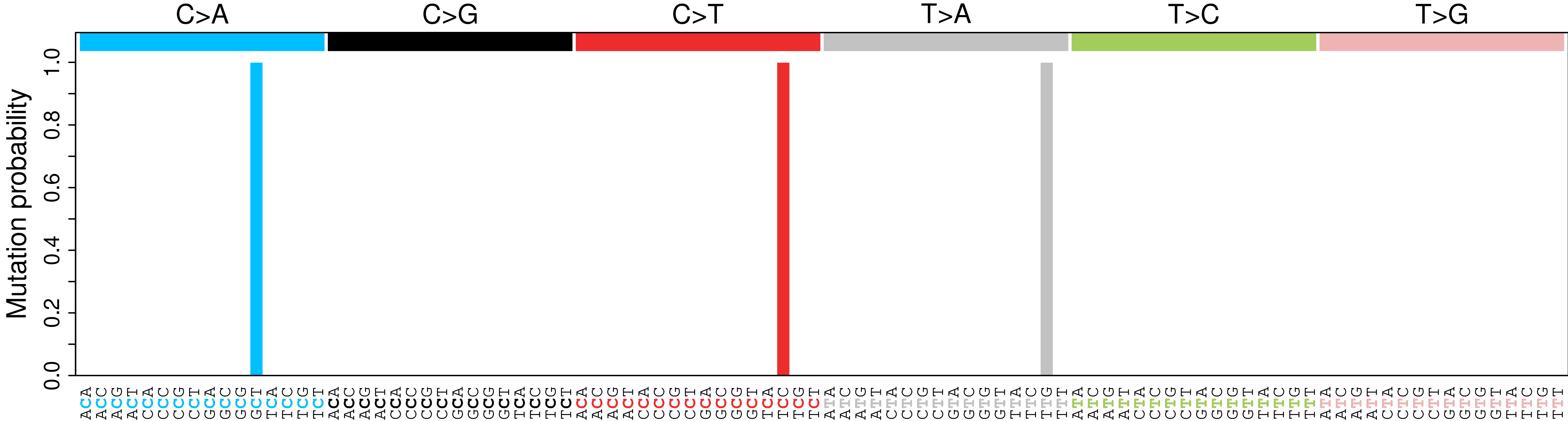
CATD0146a



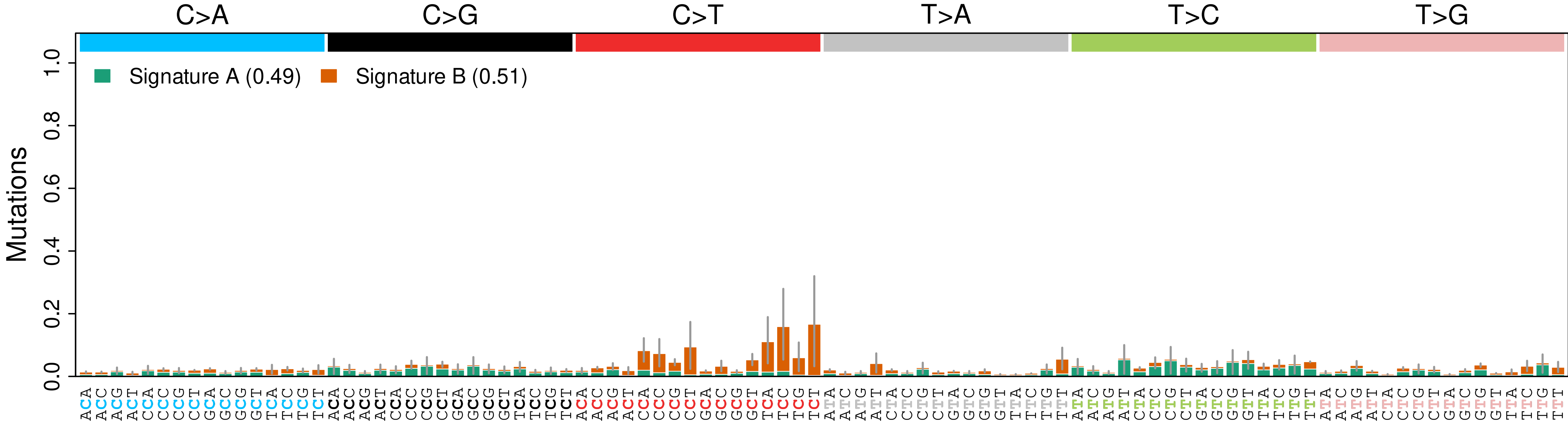
Reconstructed spectrum (cosine similarity = 0.129)



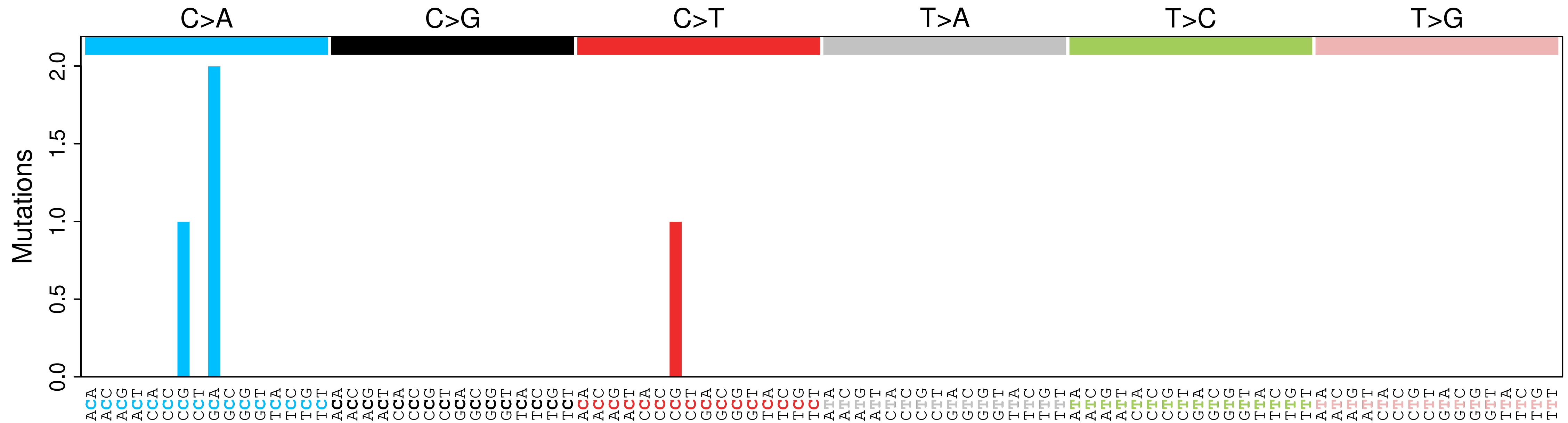
CATD0641a



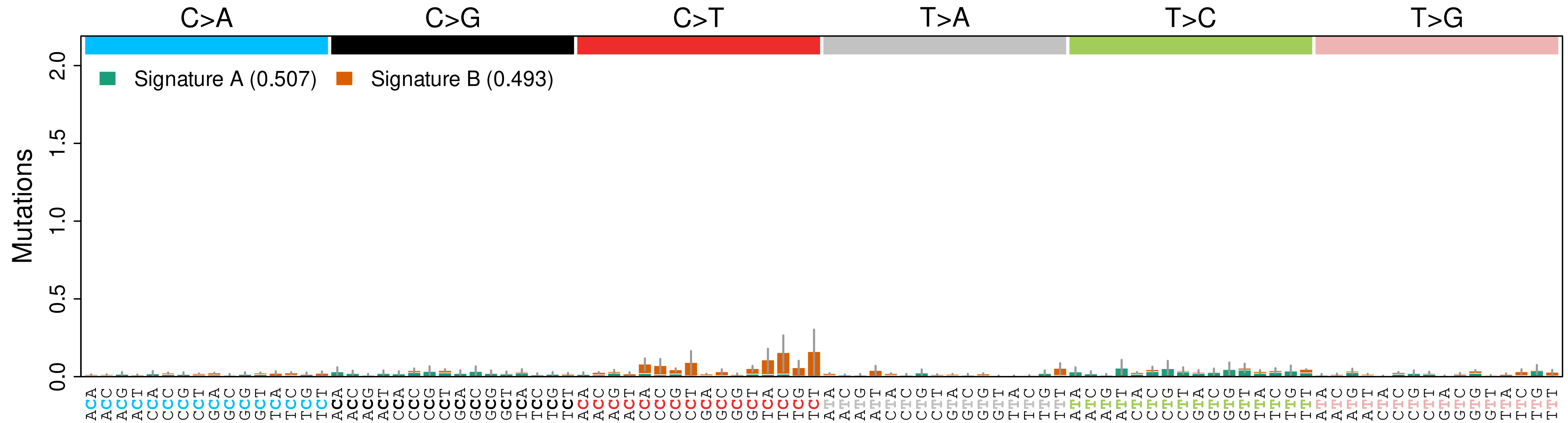
Reconstructed spectrum (cosine similarity = 0.298)



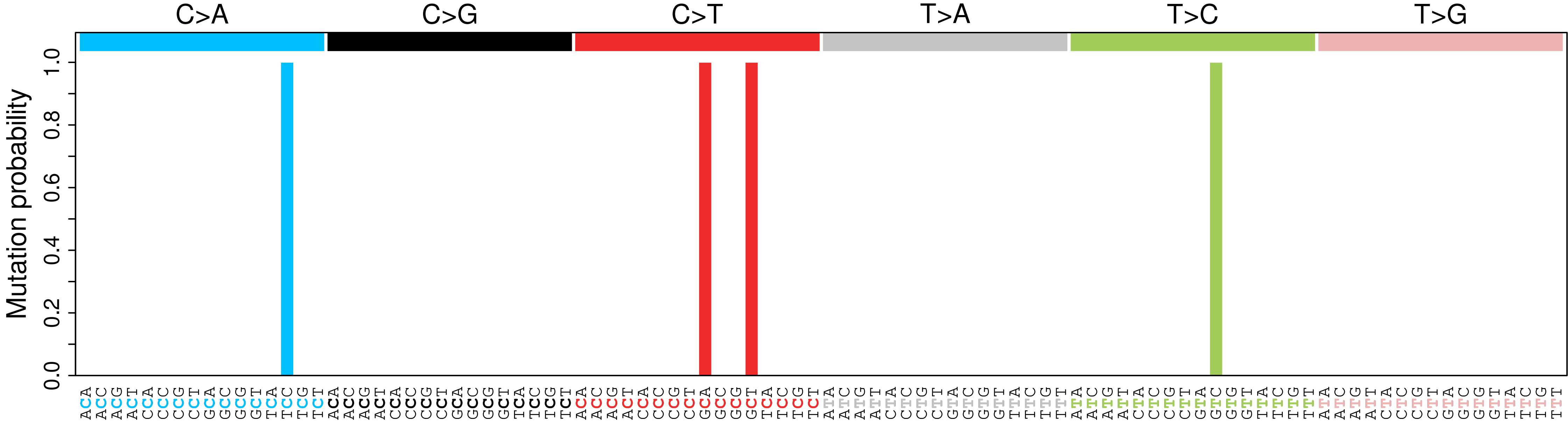
### CATD0143a (4 mutations)



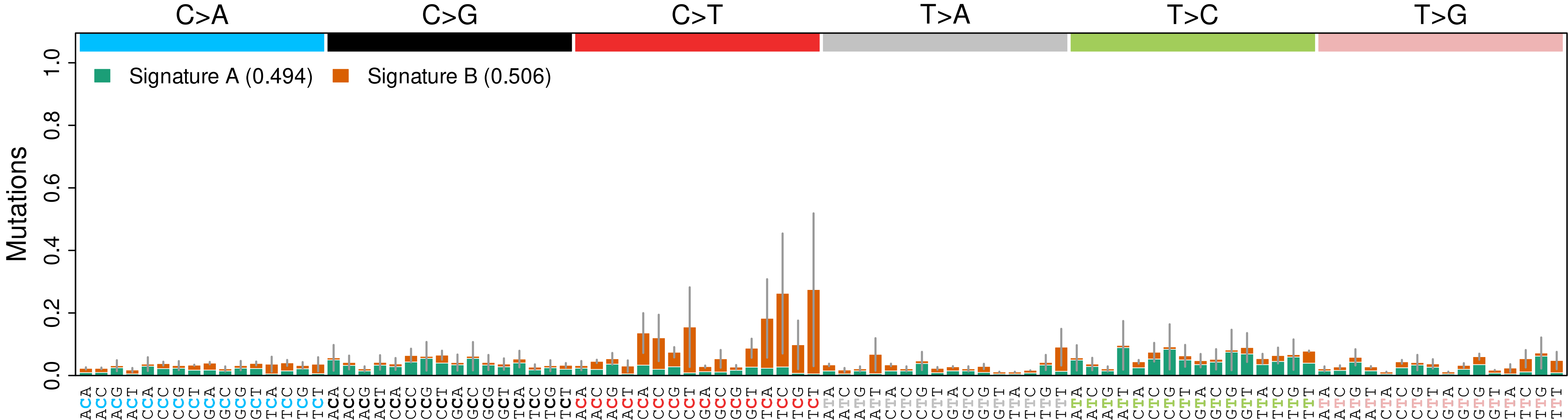
### Reconstructed spectrum (cosine similarity = 0.115)



CATD0632a

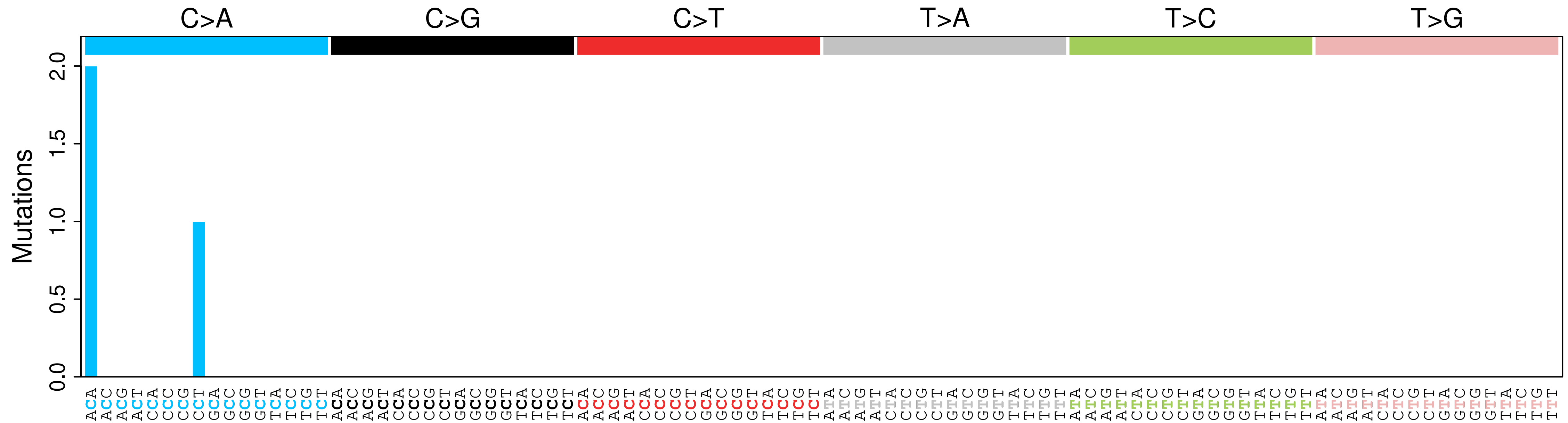


Reconstructed spectrum (cosine similarity = 0.156)

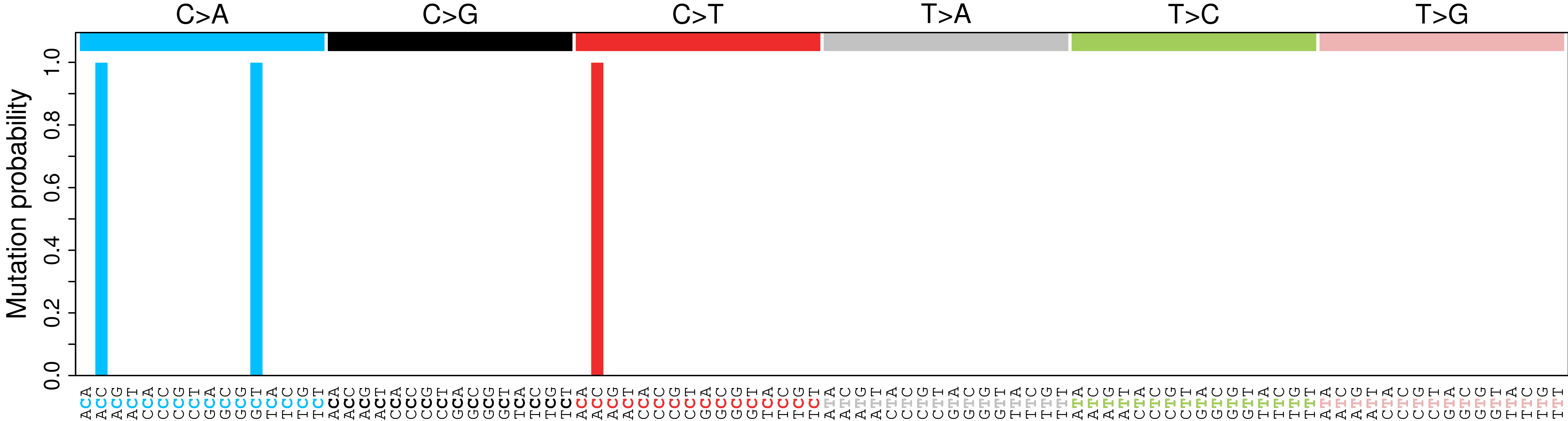




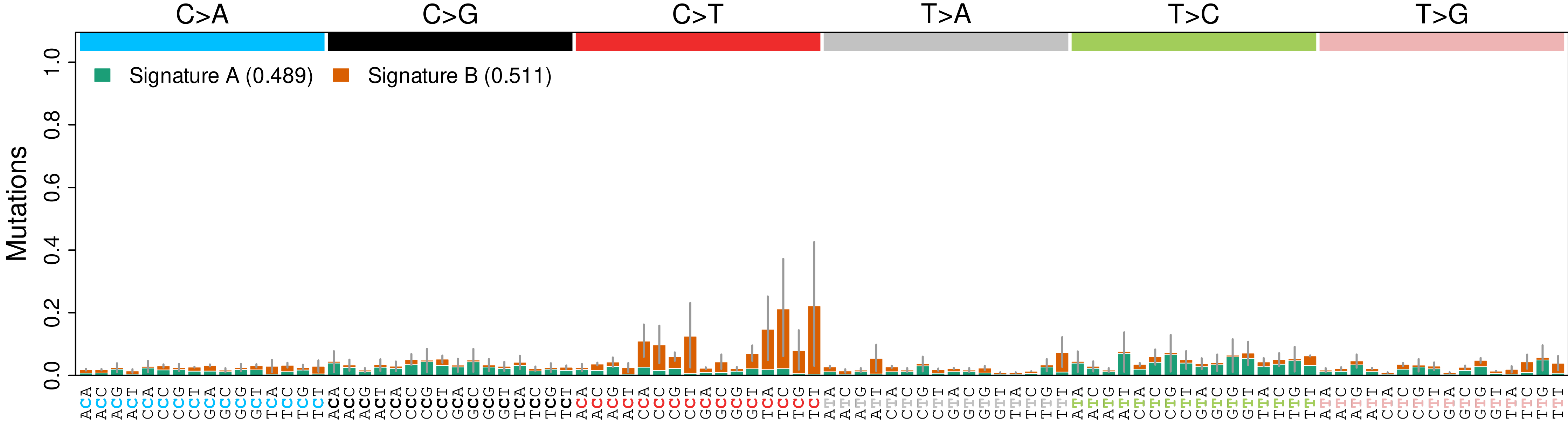
### CATD0633a (3 mutations)



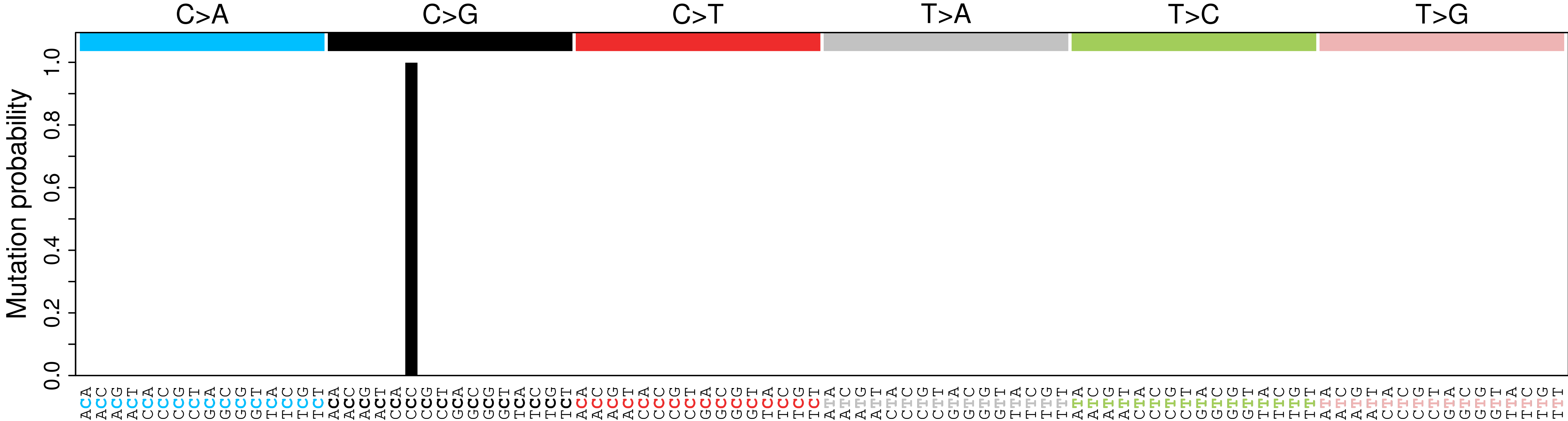
CATD0157a



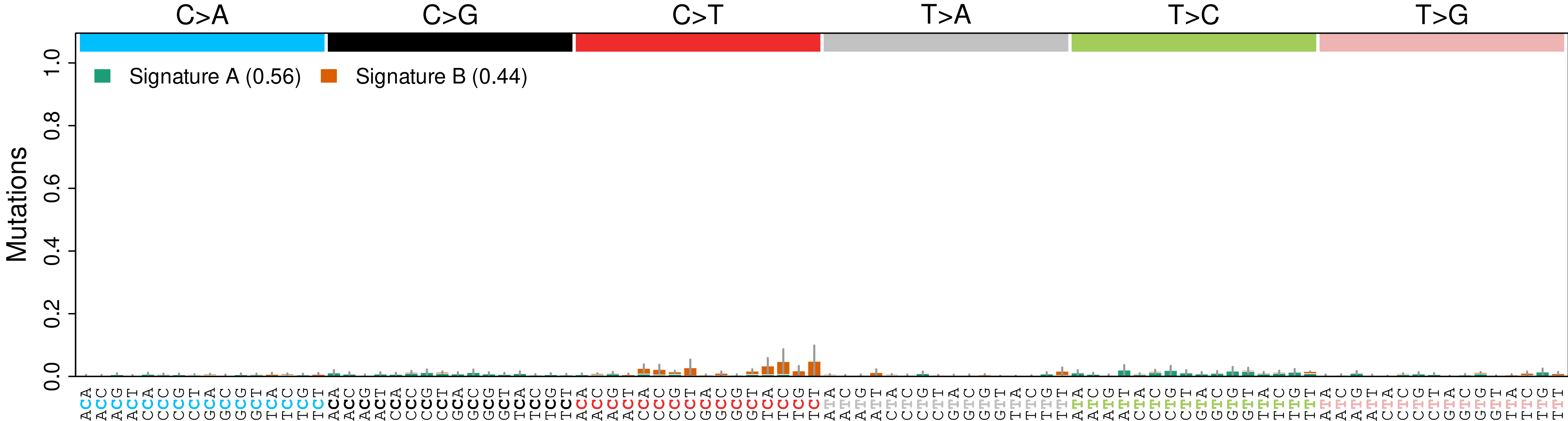
Reconstructed spectrum (cosine similarity = 0.092)



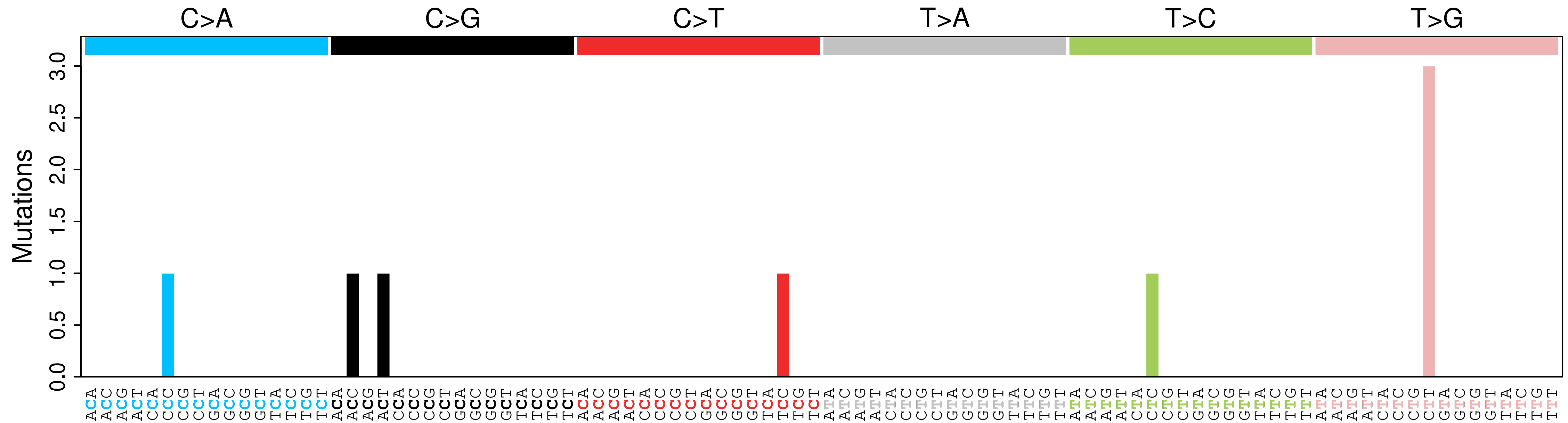
CATD0147a



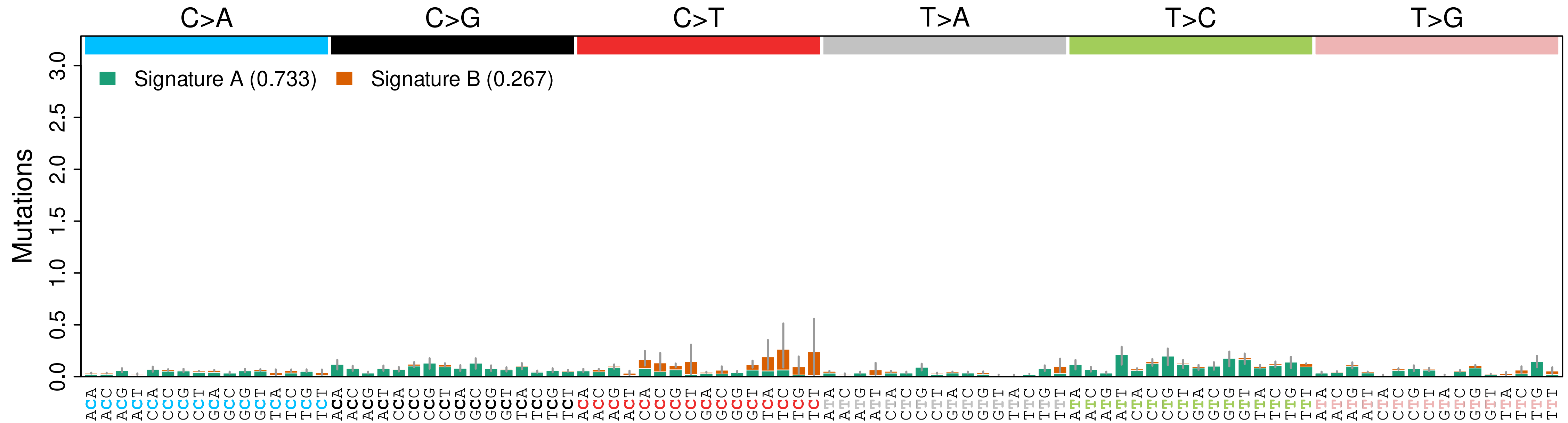
Reconstructed spectrum (cosine similarity = 0.105)



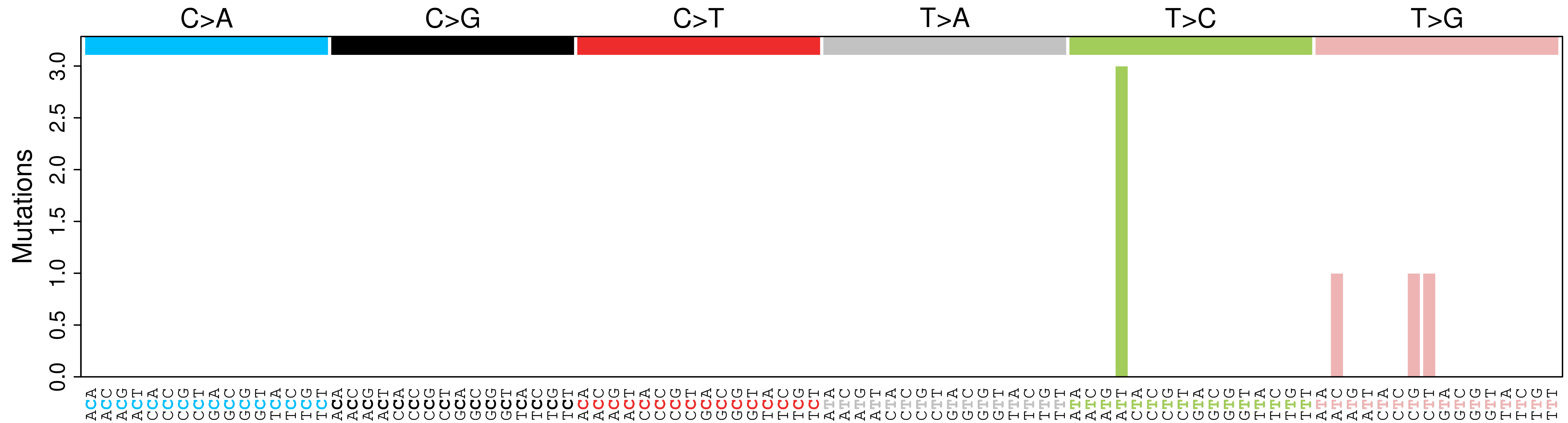
### CATD0145a (8 mutations)



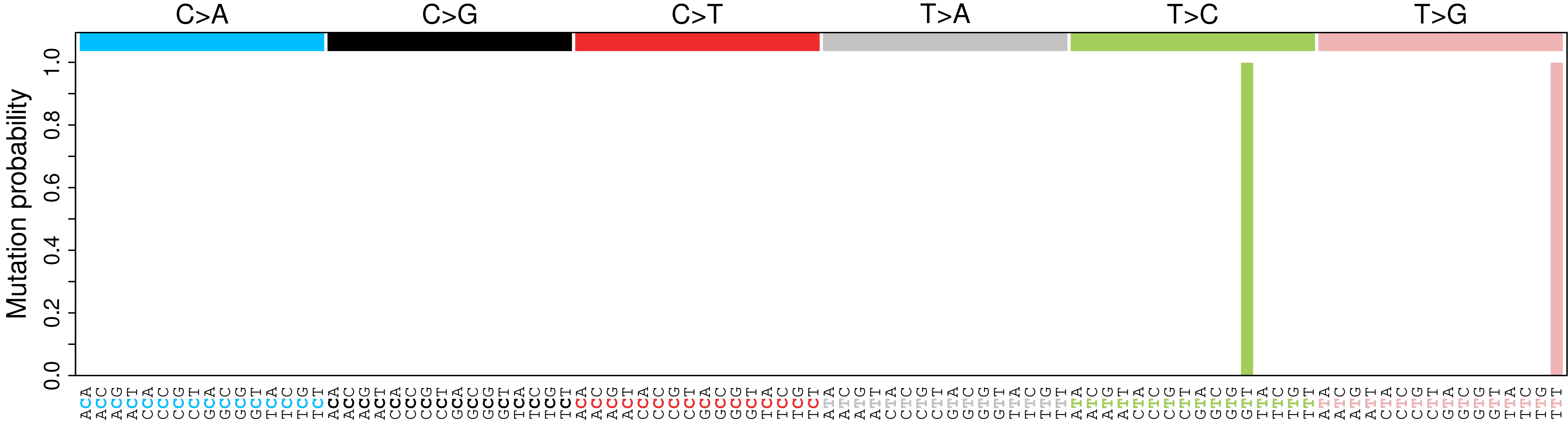
### Reconstructed spectrum (cosine similarity = 0.24)



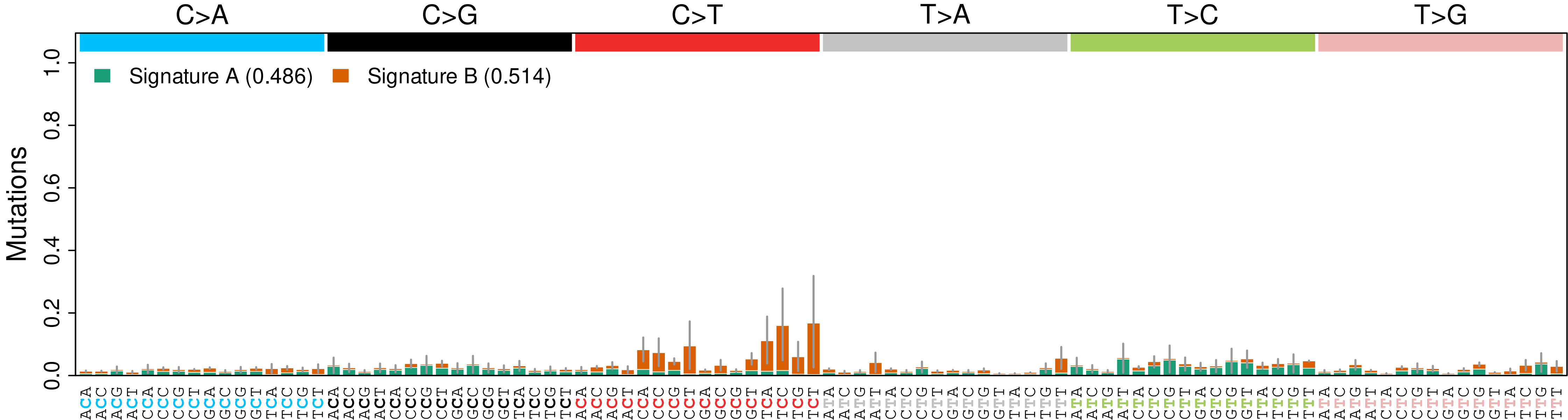
### CATD0159a (6 mutations)



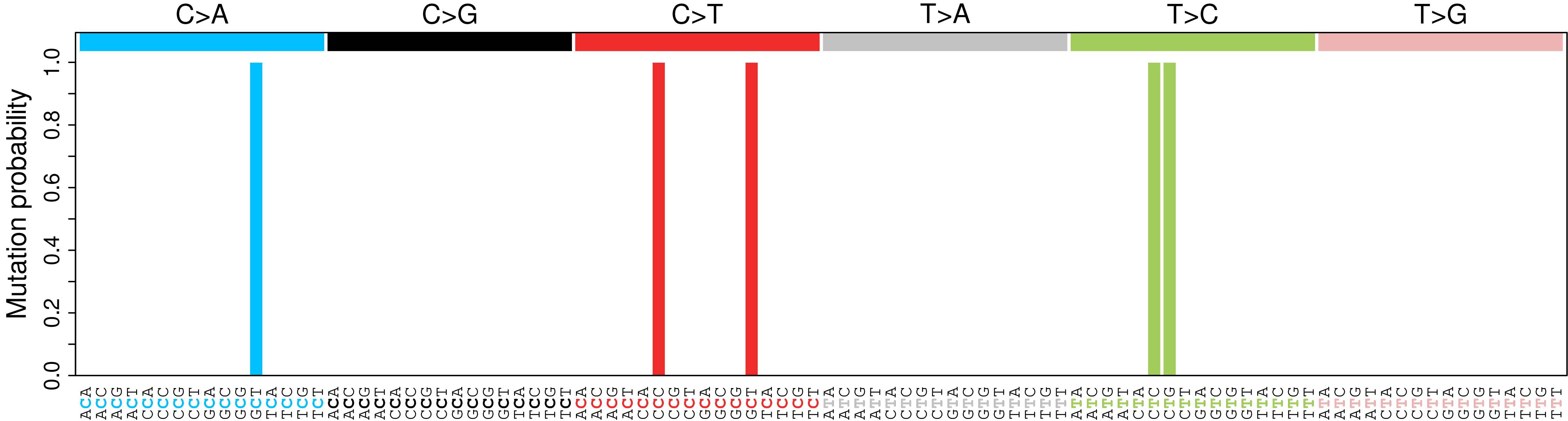
CATD0148a



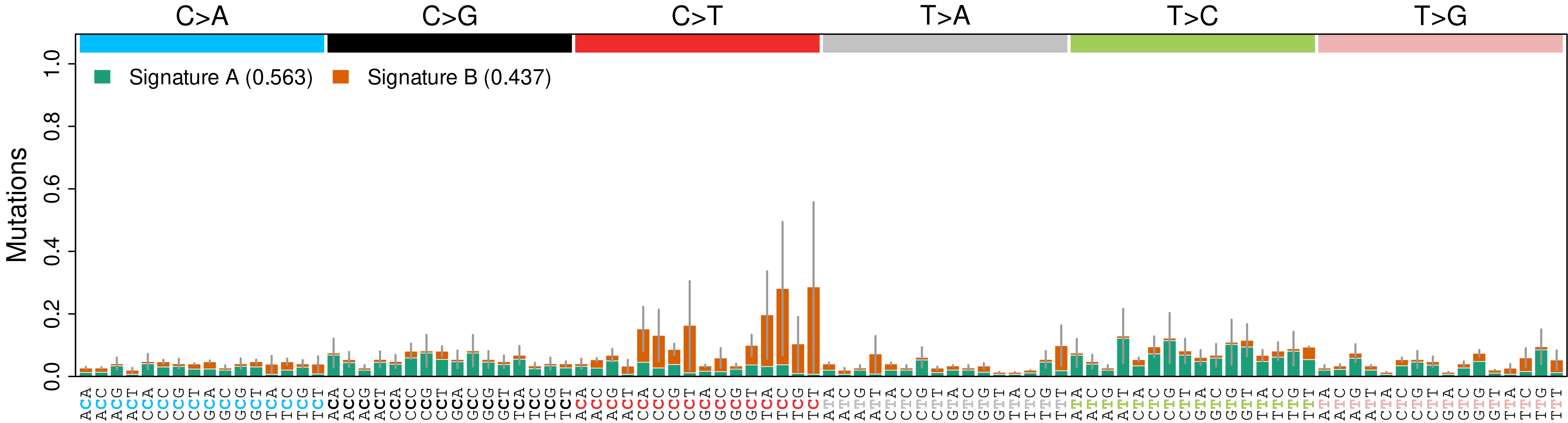
Reconstructed spectrum (cosine similarity = 0.145)



CATD0153a

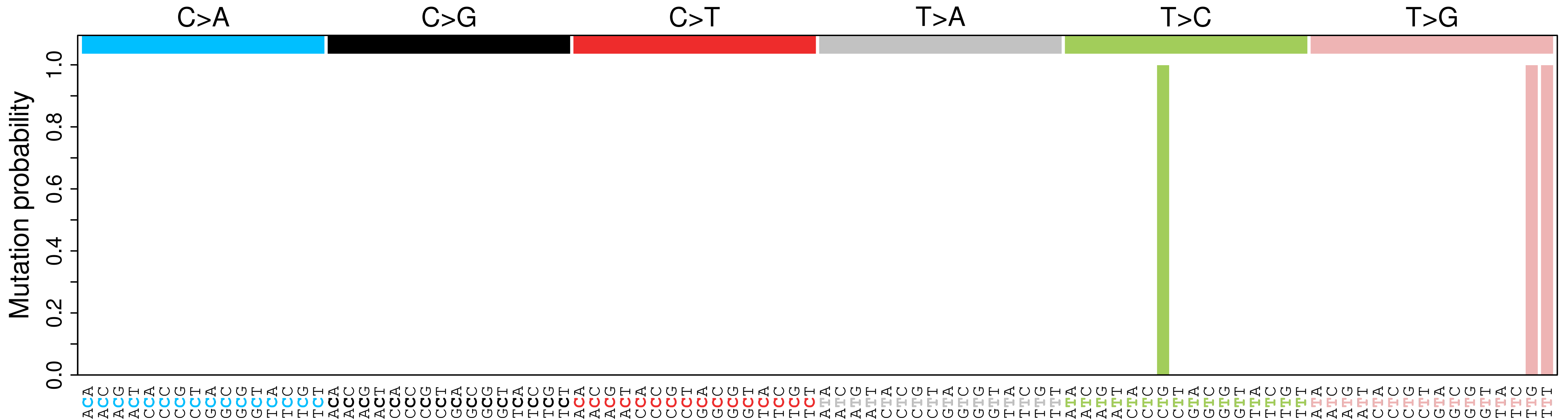


Reconstructed spectrum (cosine similarity = 0.289)

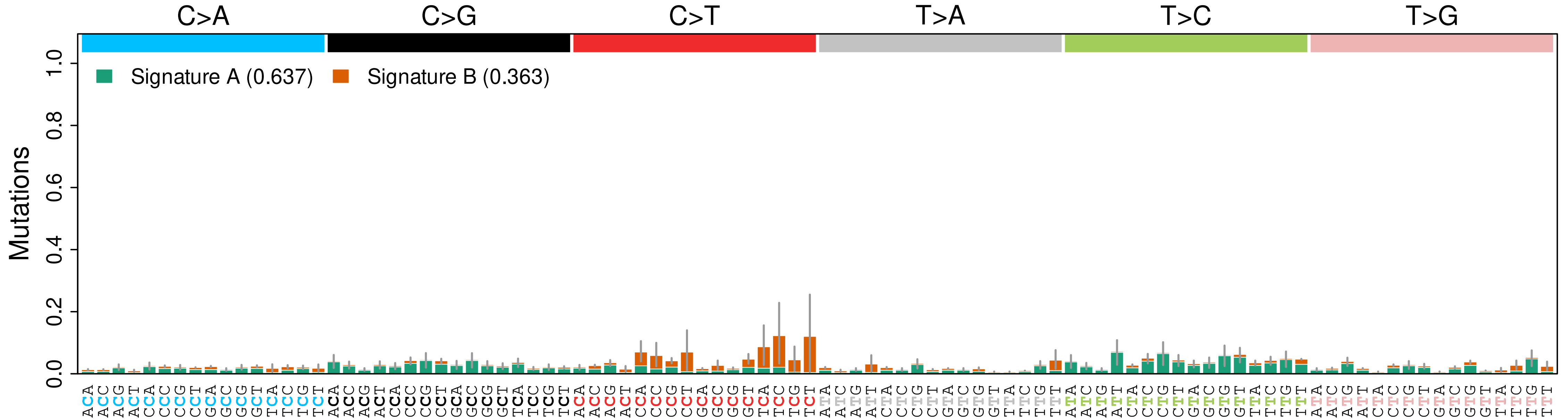




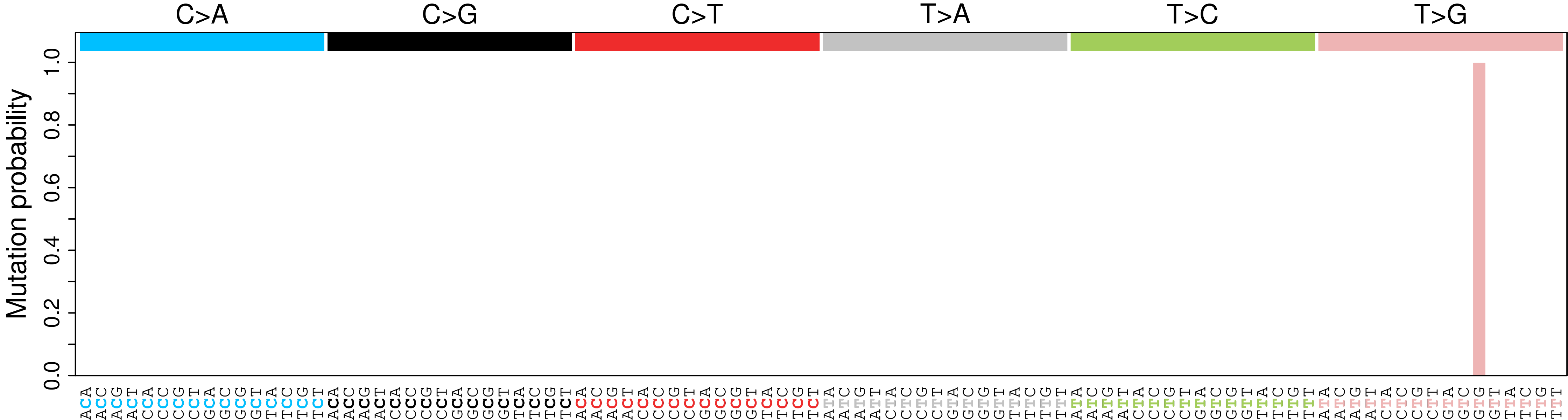
CATD0635a



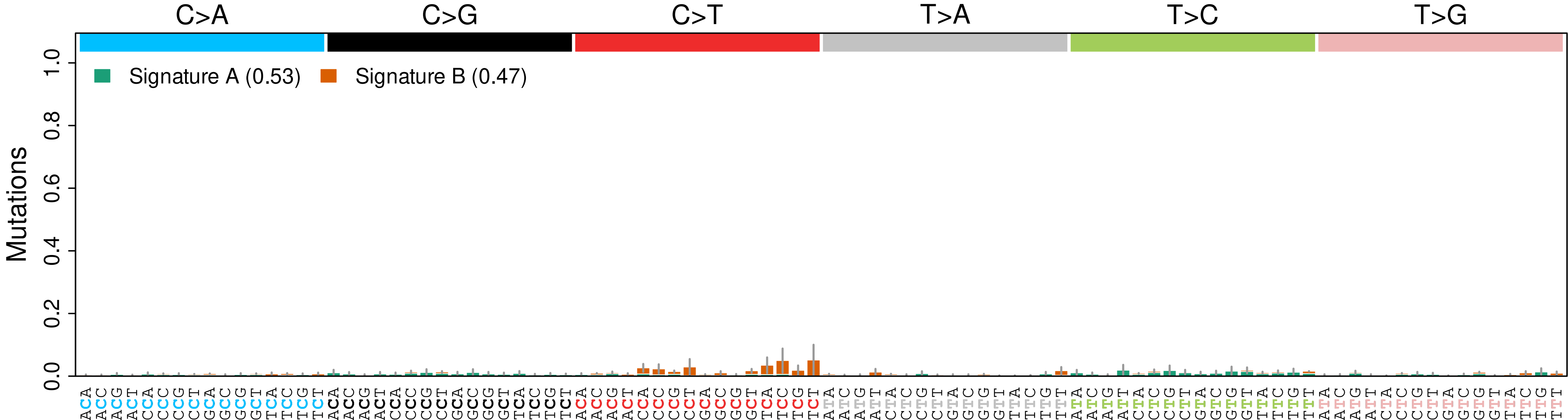
Reconstructed spectrum (cosine similarity = 0.225)



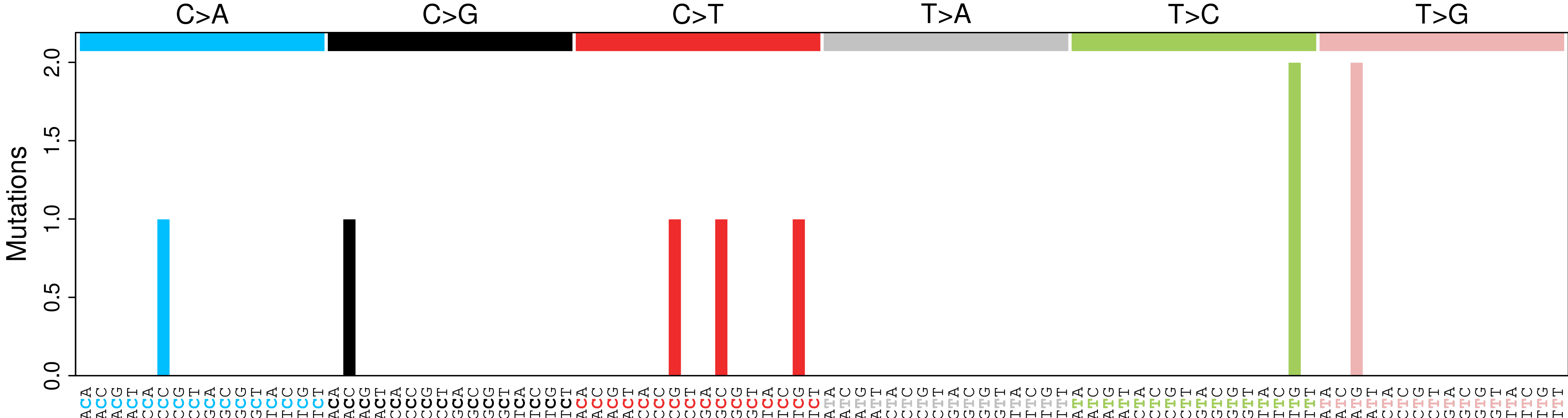
CATD0646a



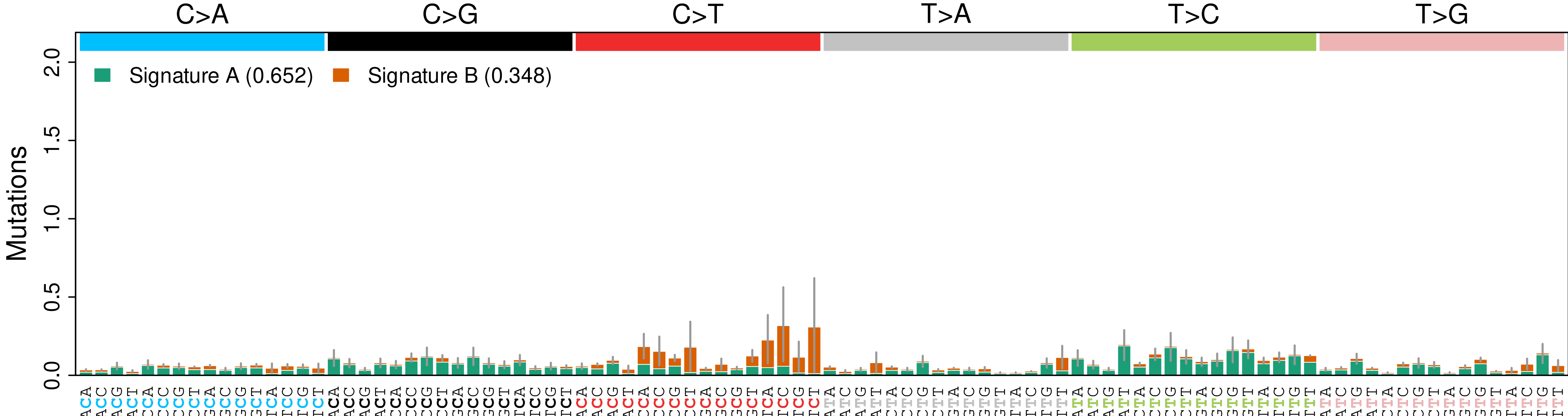
Reconstructed spectrum (cosine similarity = 0.094)



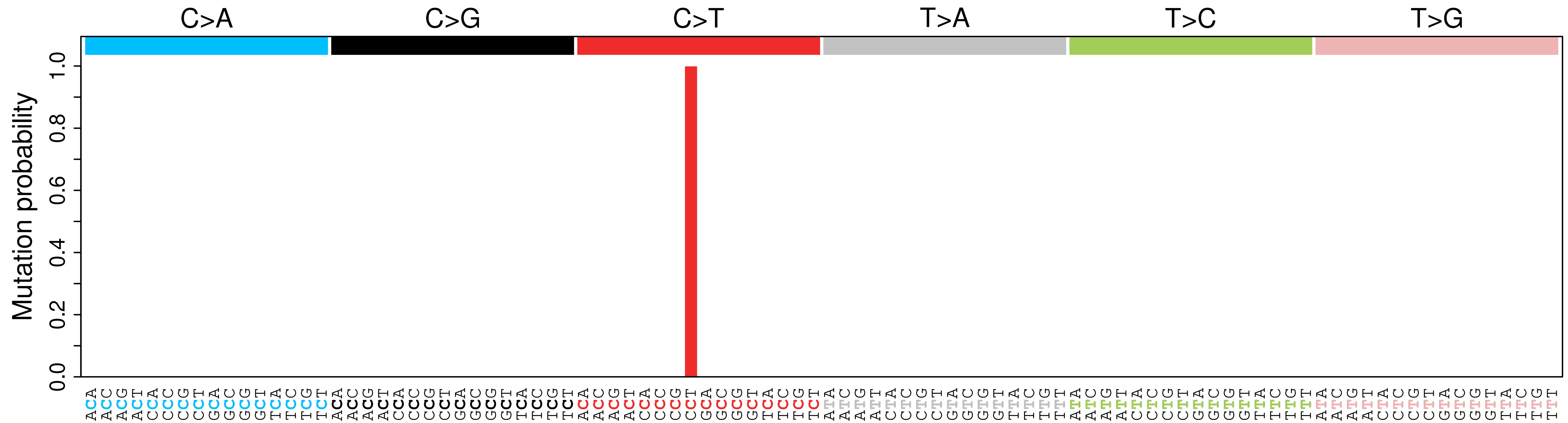
## CATD295a (9 mutations)



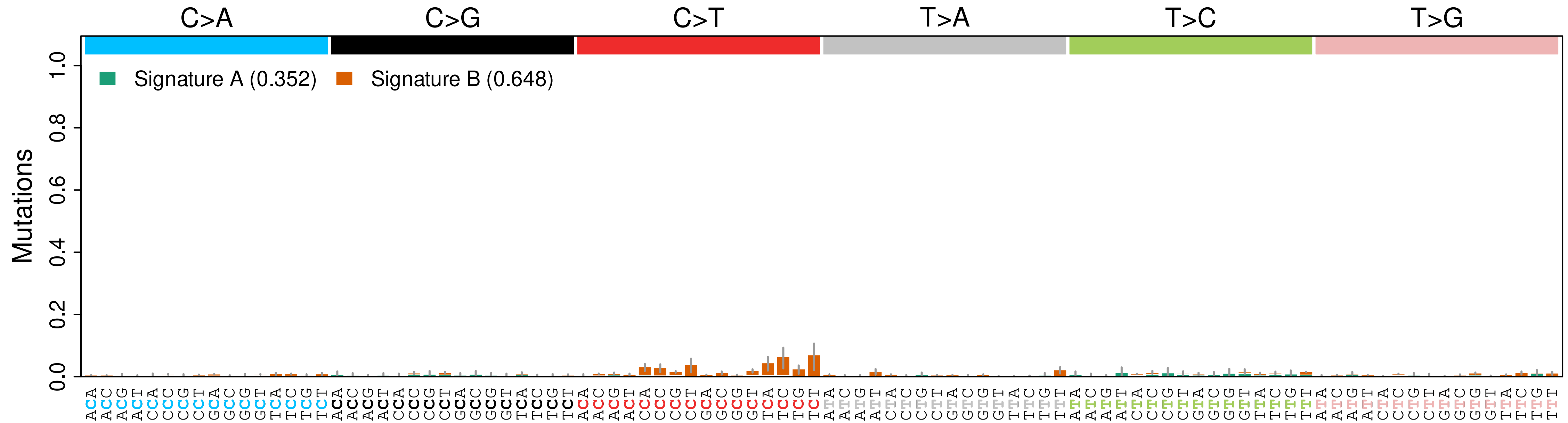
### Reconstructed spectrum (cosine similarity = 0.26)



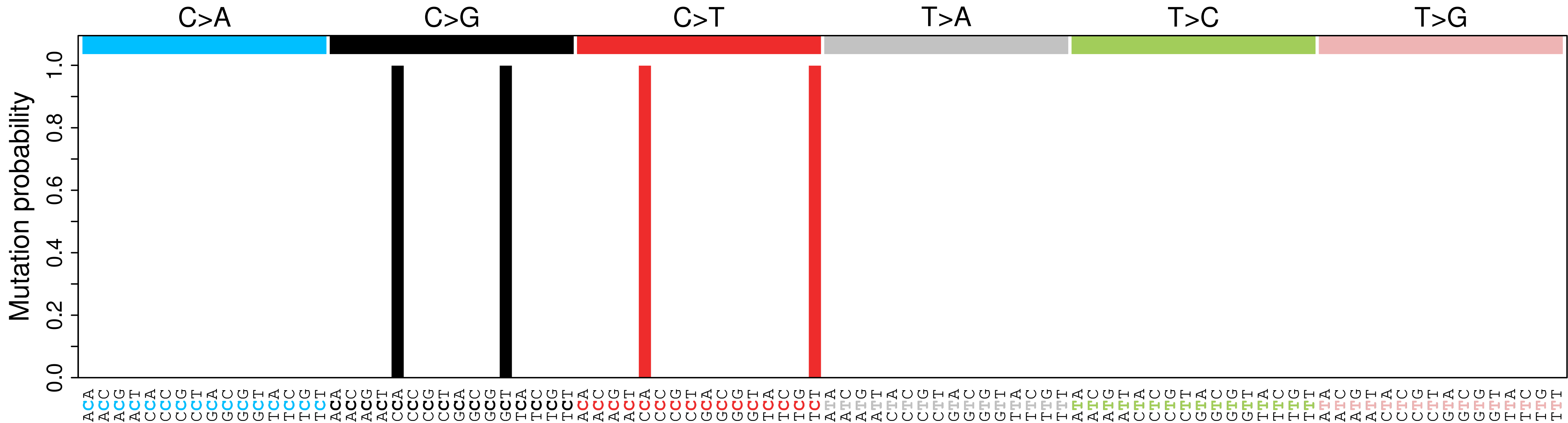
# CATD290a



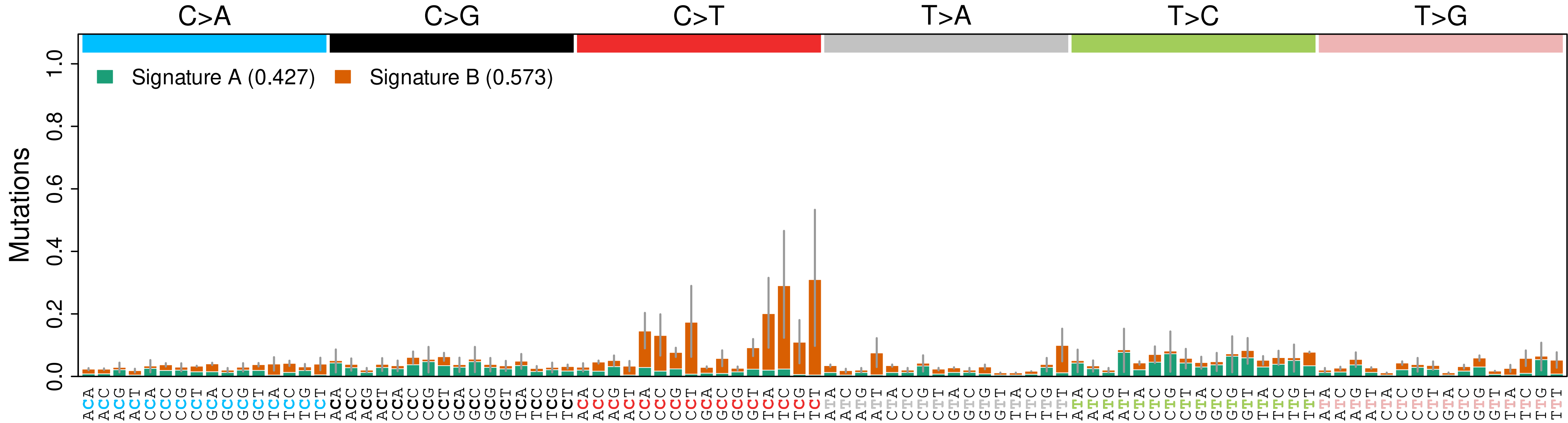
### Reconstructed spectrum (cosine similarity = 0.264)



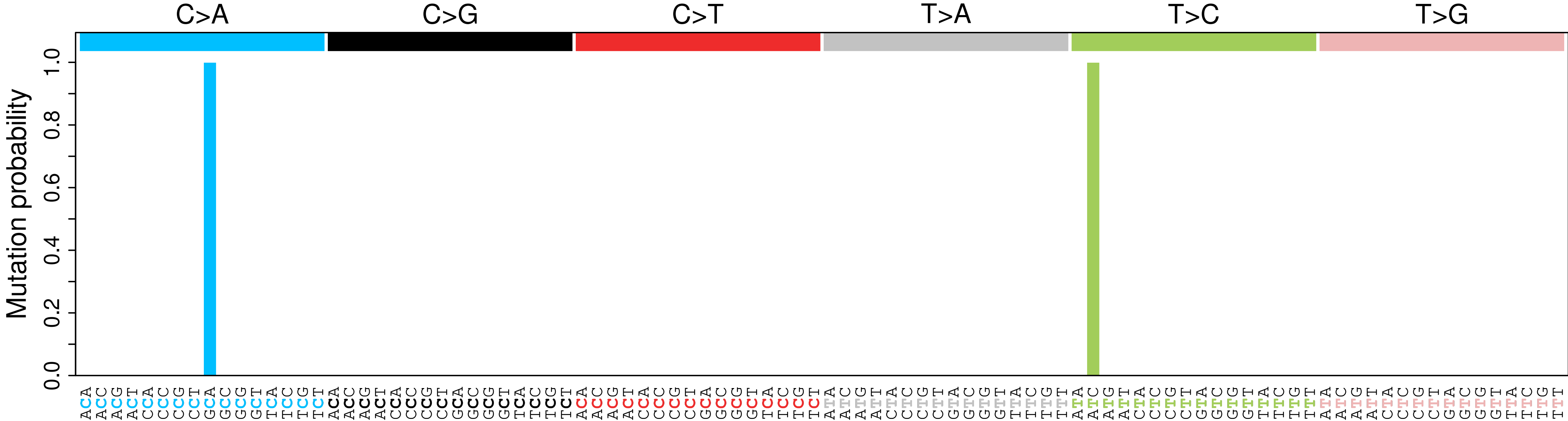
CATD0142a



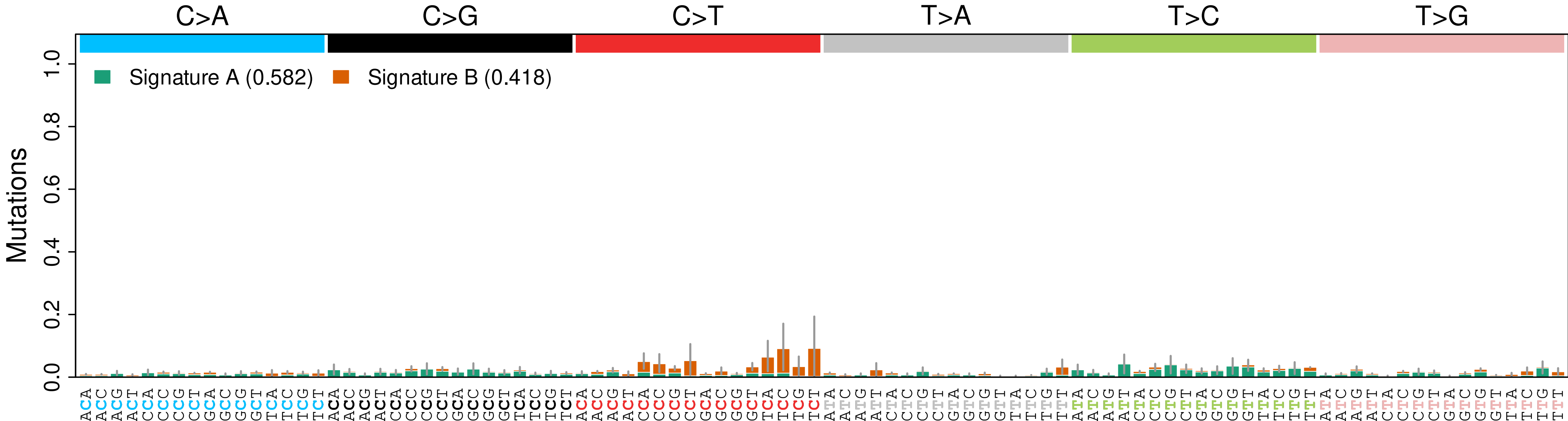
Reconstructed spectrum (cosine similarity = 0.376)



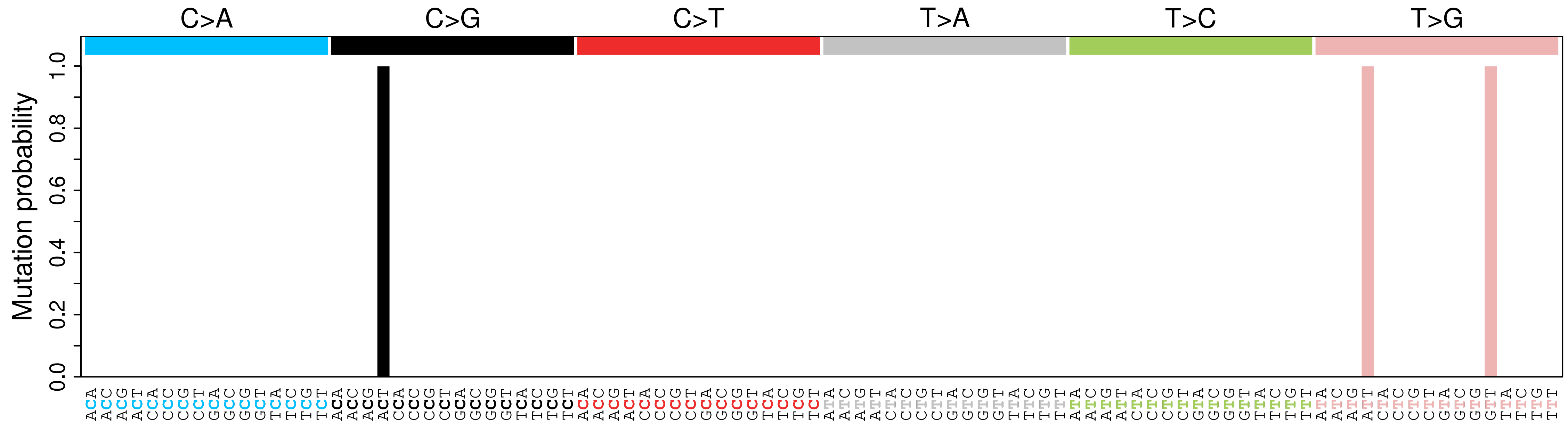
CATD291a



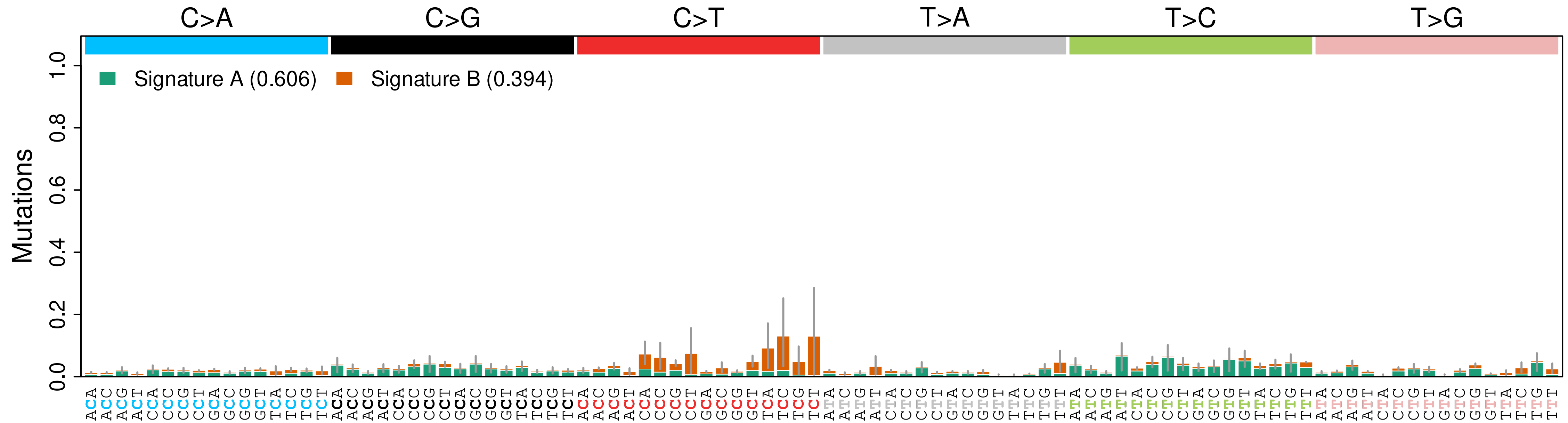
Reconstructed spectrum (cosine similarity = 0.089)



# CATD284a

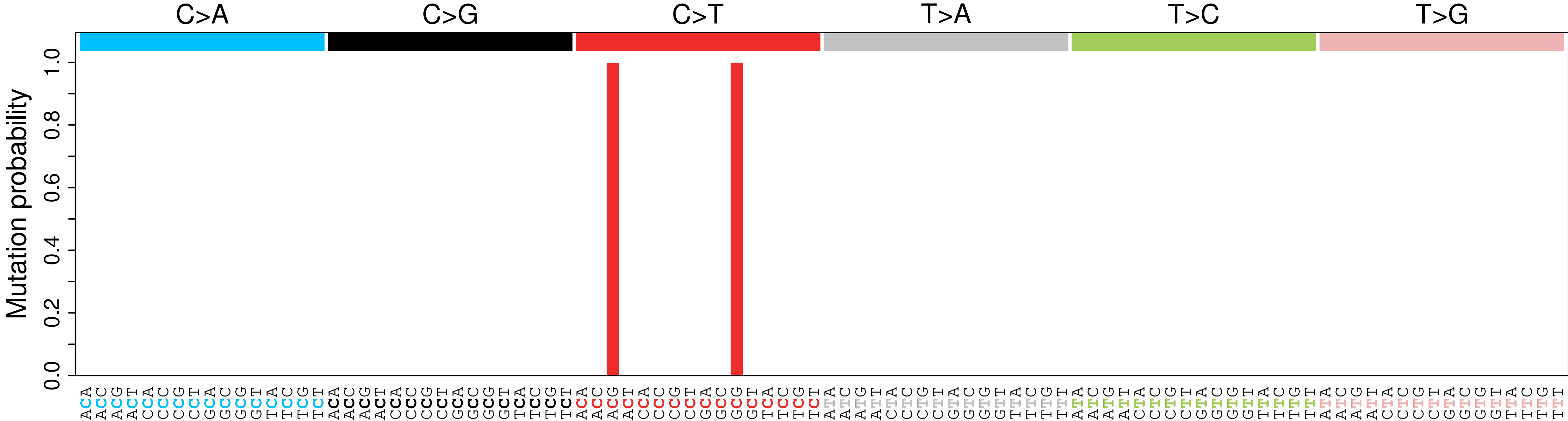


### Reconstructed spectrum (cosine similarity = 0.085)

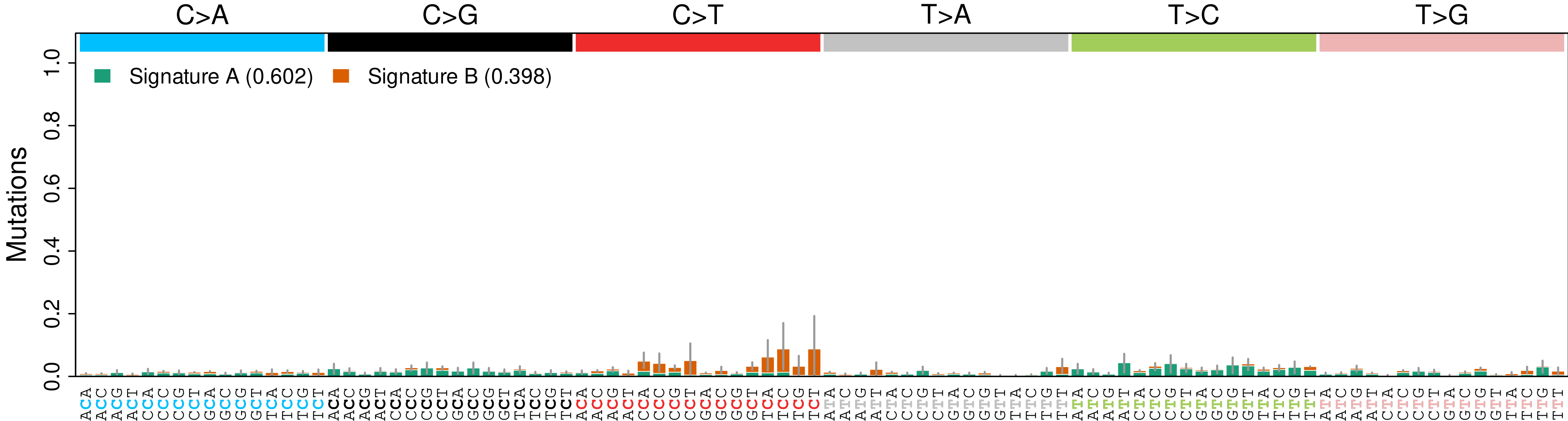




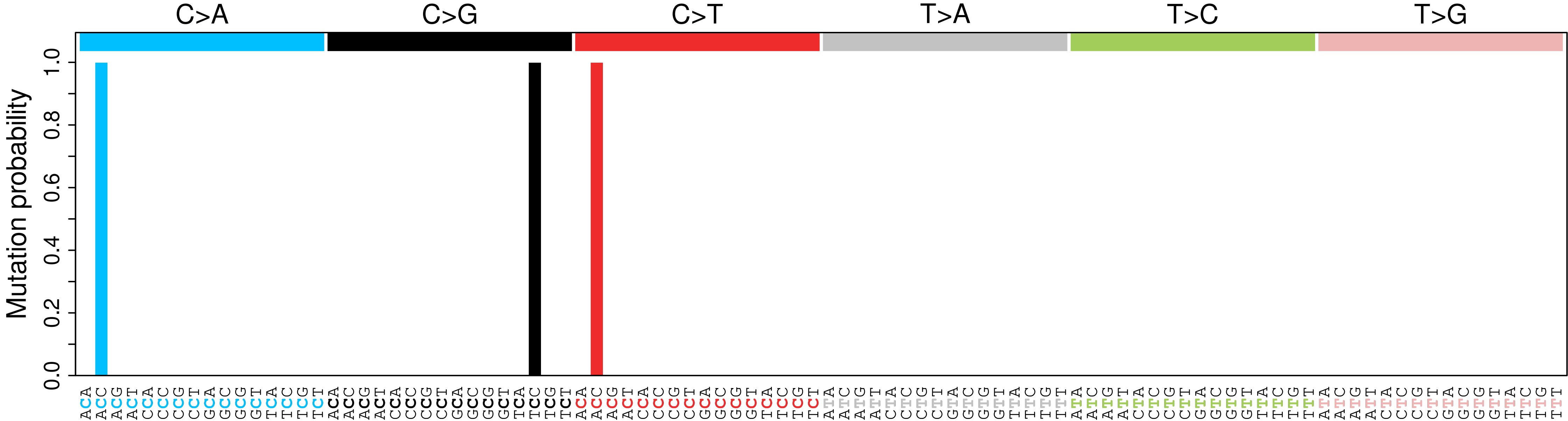
CATD0150a



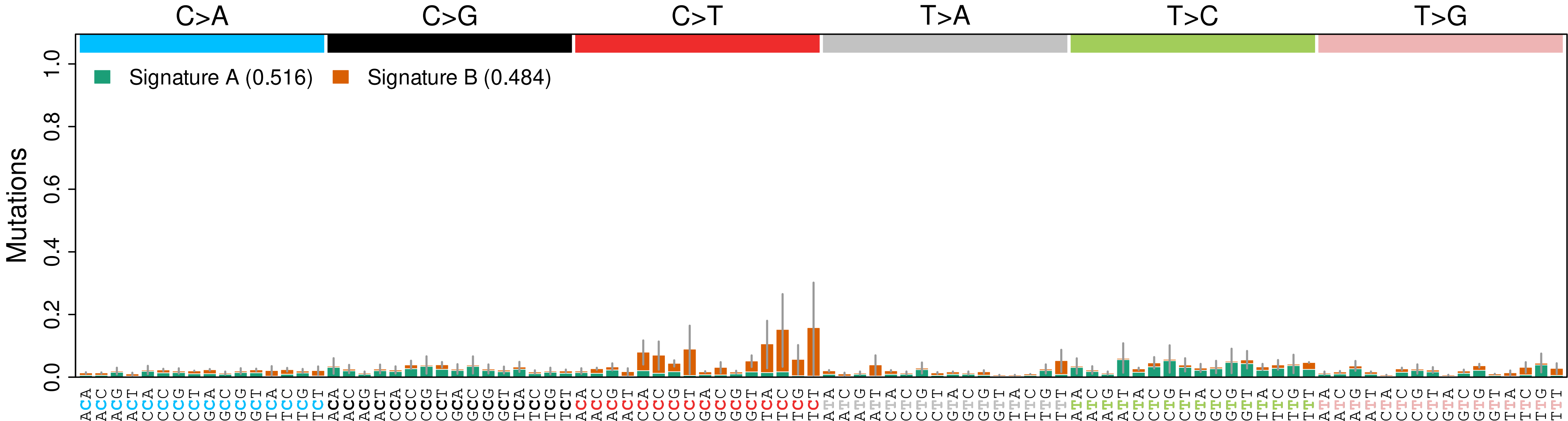
Reconstructed spectrum (cosine similarity = 0.098)



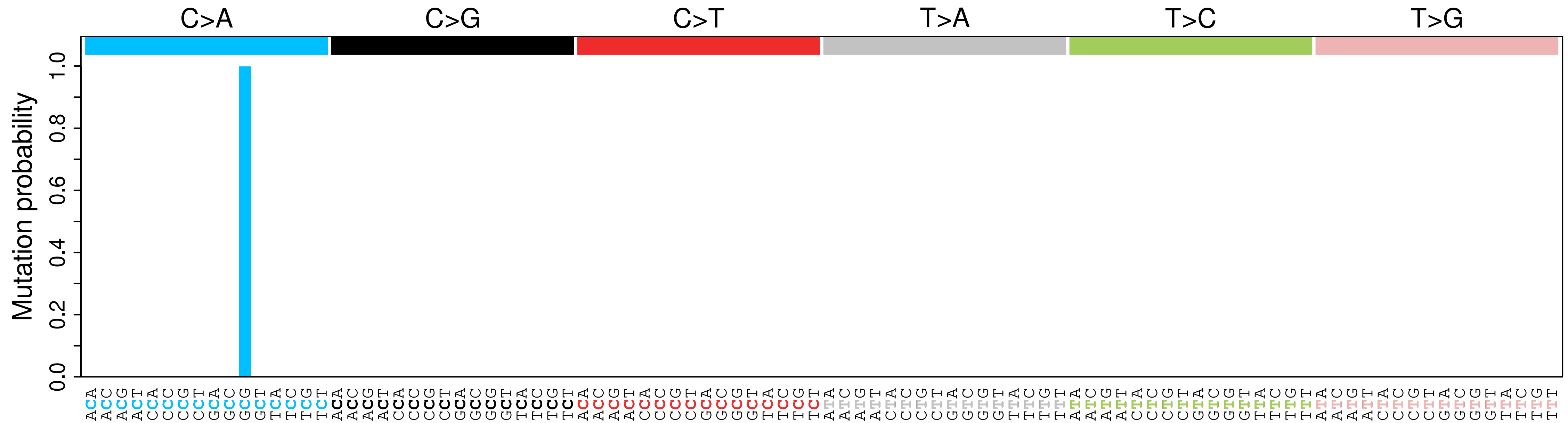
CATD0156a



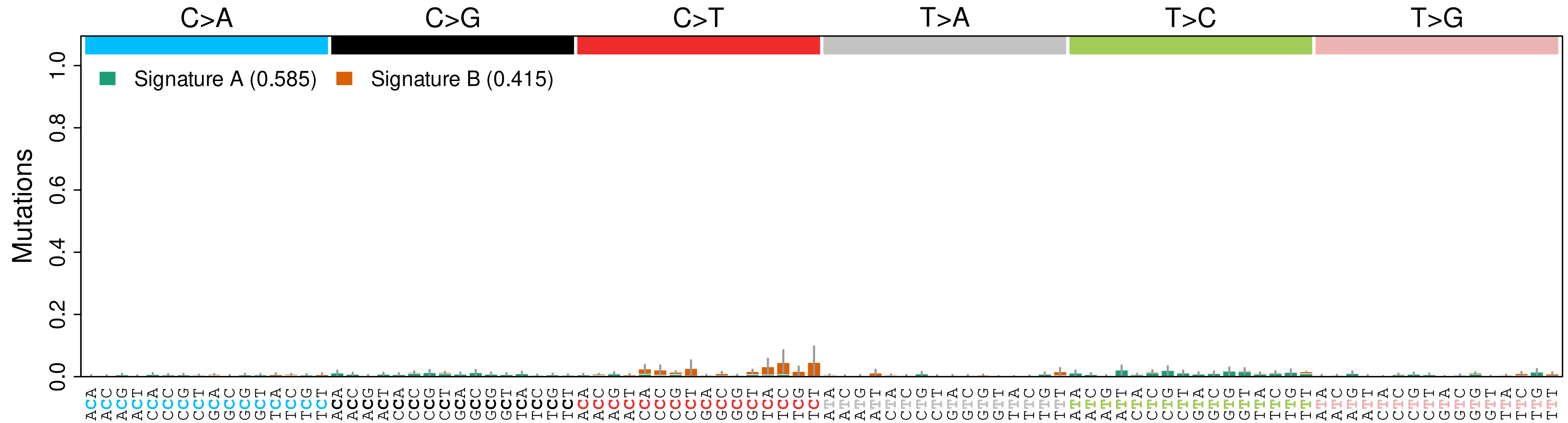
Reconstructed spectrum (cosine similarity = 0.083)



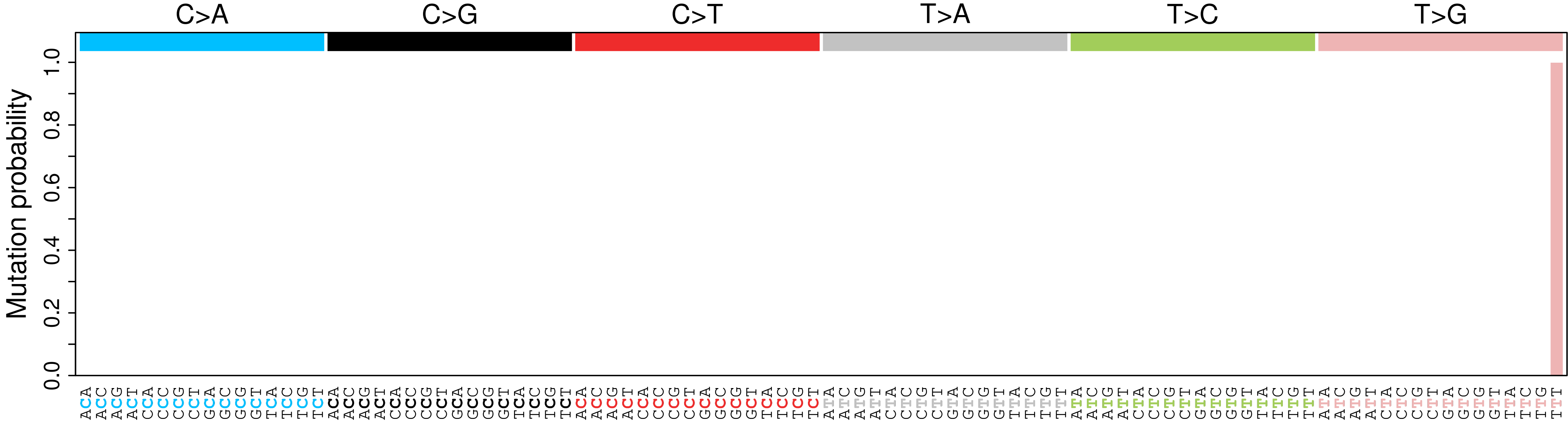
**CATD0154a**



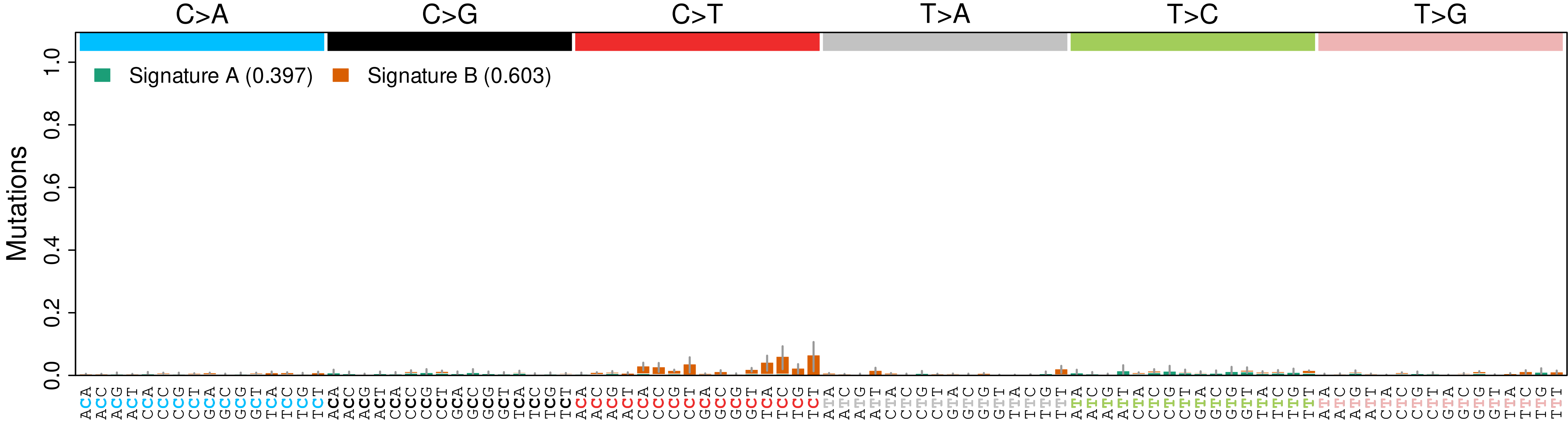
### Reconstructed spectrum (cosine similarity = 0.055)



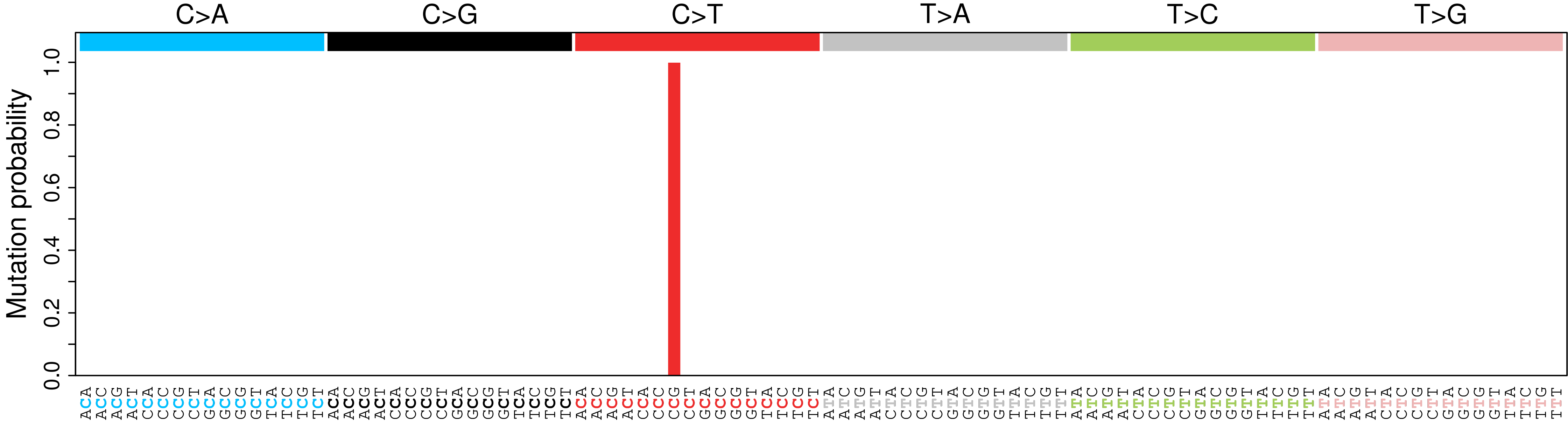
CATD0651a



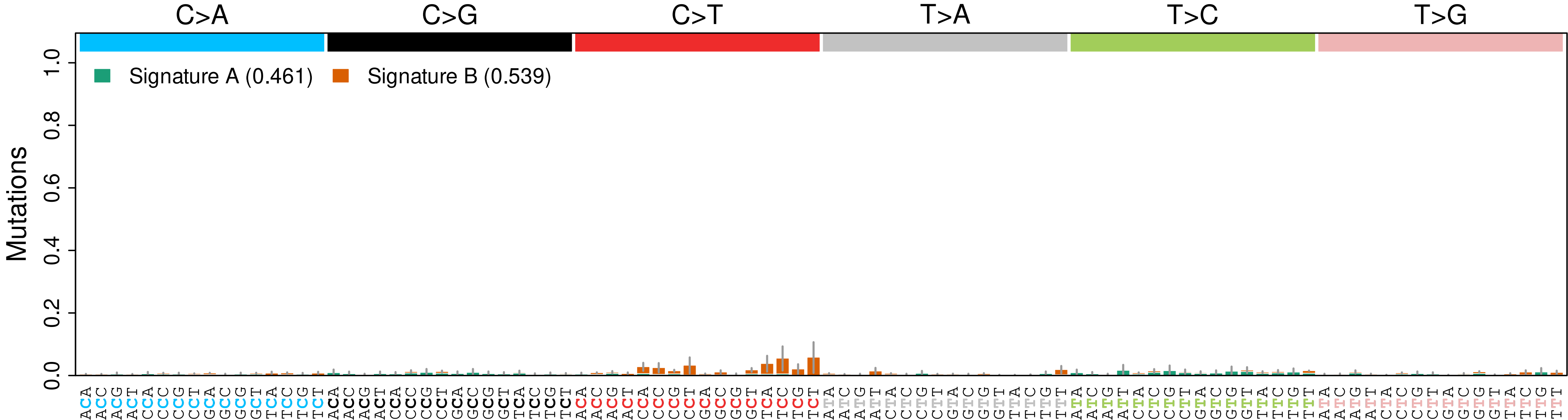
Reconstructed spectrum (cosine similarity = 0.076)



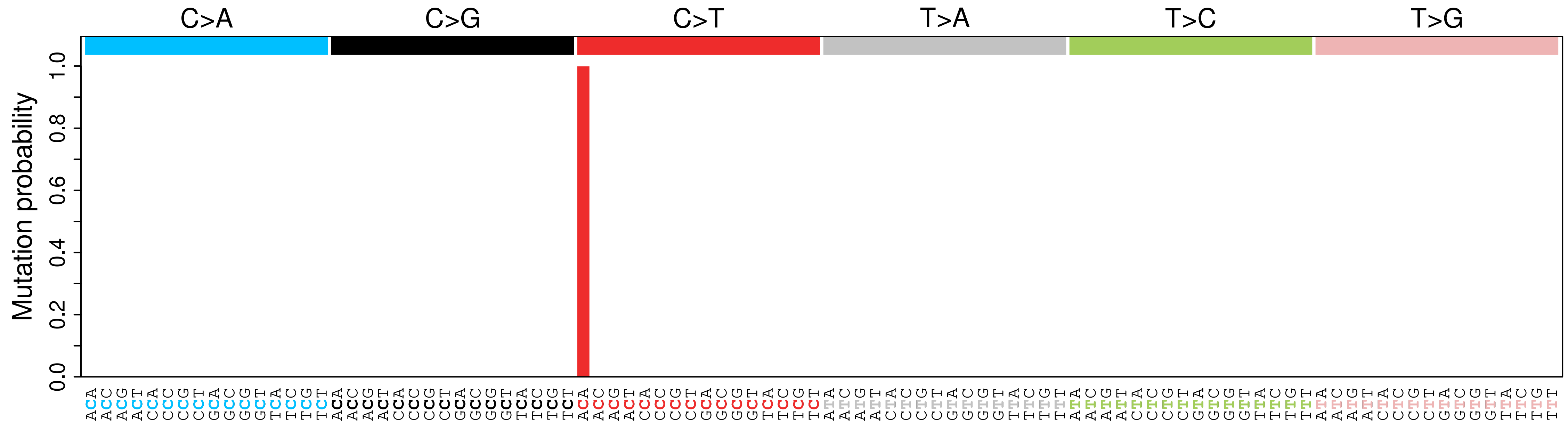
CATD0152a



Reconstructed spectrum (cosine similarity = 0.111)



**CATD0644a**



### Reconstructed spectrum (cosine similarity = 0.054)

