

HW 1: Medical Imaging Systems

Jake Bergquist, u6010393

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Q1

a

I found the nitric oxide synthase heme domain at 1.65 Å resolution in *Bos taurus* found via X-ray crystallography on rcsb.org. The catalog ID is 1D0C. The amino acid sequence of chain B is as follows:

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SRAPAPATPHAPDHSPAPNSPTLTRPPEGPKFPRVKNWELGSITYDTLCAQSQQDGPCT
PRRCLGSLVLPRKLQTRPSPGPPPAEQLLSQARDFINQYYSSIKRSGSQAHEERLQEVEAEVAS
TGTYHLRESELVFGAKQAWRNAPRCVGRIQWGKLQVFDARDCSSAQEMFTYICNHIKYATN
RGNLRSITVFPQRAPGRGDFRIWNSQLVRYAGYRQQDGSVRGDPANVEITELCIQHGWTPG
NGRFDVLPLLLQAPDEAPELFLPPELVLEVPLEHPTLEWFAALGLRWYALPAVSNMLLEIGG
LEFSAAPFSGWYMSTEIGTRNLCDPHRYNILEDVAVCMDLDTRTTSSLWKDKAAVEINLAVL
HSFQLAKVTIVDHHAATVSFMKHLDNAEQKARGGCPADWAWIVPPISGSLTPVFHQEMVNYIL
SPAFRYQPD PW
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b

With the search criteria Thrombin, and homo sapiens I found that the three most recent structures available are 6GBW, 6FJT, and 6EVV as of 9/3/19.

Q2