



Figure S1. Stereo views of surroundings of insulin disulfides.

(A) A_C6-A_C11 disulfide (B) A_C20-B_C19 disulfide.

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H. sapiens|a'|
                DKQPVKVLVGKNFEDVAFDEKKNVFVEFYAPWCGHCKQLAPIWDKLGETYKDHEN-IVIA 59
B. taurus |a' DKQPVKVLVGKNFEEVAFDEKKNVFVEFYAPWCGHCKQLAPIWDKLGETYKDHEN-IVIA 59
H. sapiens |a|
                EEEDHVLVLRKSNFAEALAAHKYLLVEFYAPWCGHCKALAPEYAKAAGKLKAEGSEIRLA 60
B. taurus |a
                DEEDHYLVLHKGNFDEALAAHKYLLVEFYAPWCGHCKALAPEYAKAAGKLKAEGSEIRLA 60
                               *: :*::********* *** : * . . * . . * :*
                :::
                      ::: *.
H. sapiens|α' KMDST--ANEVEAVKVHSFPTLKFFPASADRTVIDYNGERTLDGFKKFLESGGQ 111
B. taurus |a' KMDST--ANEVEAVKVHSFPTLKFFPASADRTVIDYNGERTLDGFKKFLESGGQ 111
H. sapiens |a|
                KVDATEESDLAQQYGVRGYPTIKFFRNGDTASPKEYTAGREADDIVNWLKKRTG 114
B. taurus |a
                KVDATEESDLAQQYGVRGYPTIKFFKNGDTASPKEYTAGREADDIVNWLKKRTG 114
                *:*:* :: ::
                              *...**:*** . : :*.. * *.: ::*..
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Figure S2. Alignment of bovine and human PDI *a*- and *a*'- domain sequences. The amino acid differences between human and bovine are colored in pink for *a*- domains and blue for *a*'- domains. The CXXC motif is shown in green.