

# Supporting information

Screening of Fv-antibodies with specific binding activities to monosodium urate and calcium pyrophosphate dihydrate crystals for the diagnosis of gout and pseudo-gout

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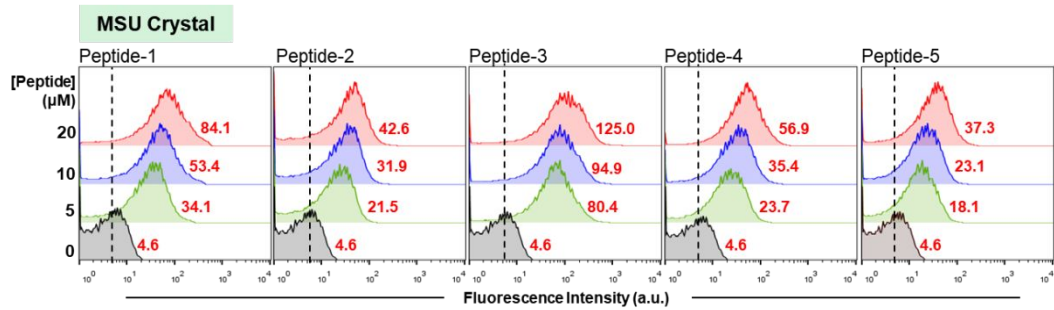
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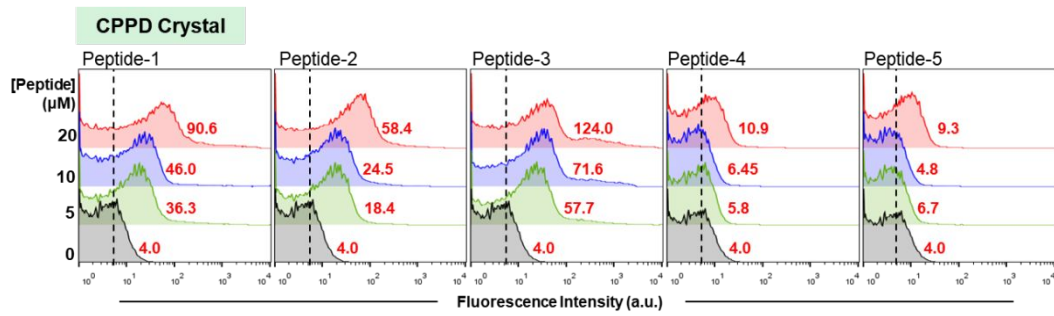
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Figure S1. Binding affinity of five synthetic peptides to (a) MSU, (b) CPPD (Fig. 4) and hydroxyapatite crystal as a model of (c) BCP. (d) Comparison of binding affinity of five synthetic peptides to three kinds of crystals of MSU, CPPD and hydroxyapatite crystals.

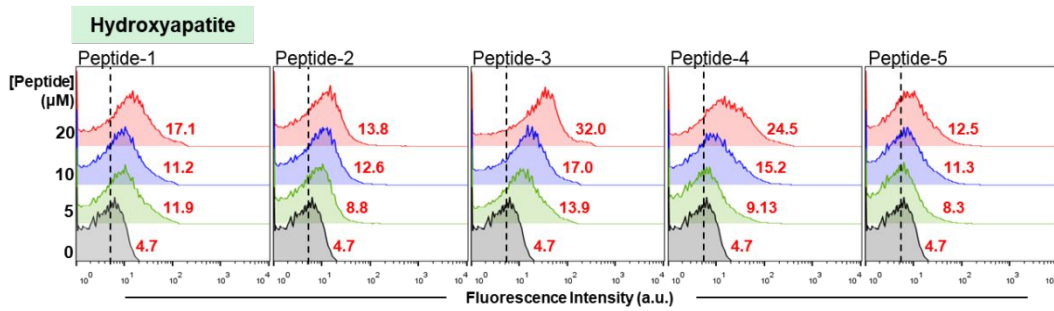
(a)



(b)



(c)



(d)

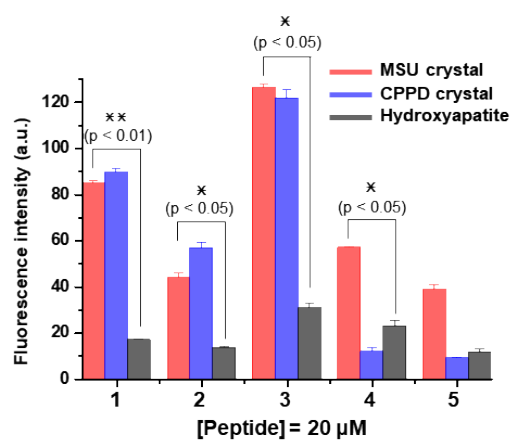


Figure S2. Hydropathy analysis of the five synthetic peptides.

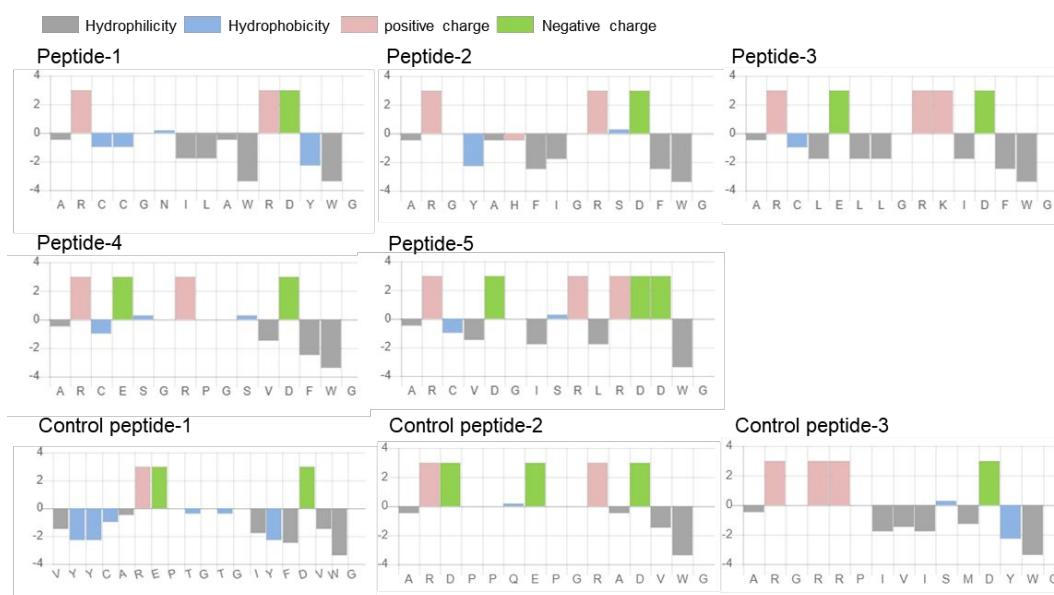


Figure S3. Comparison of the binding affinity of three kinds of control peptides to MSU and CPPD crystals using flow cytometry. The amino acid sequences of three kinds of control peptides were as follows: Control peptide-1 : <sup>1</sup>VYYCA <sup>6</sup>REPTG <sup>11</sup>TGIYF <sup>16</sup>DVWG, Control peptide-2 : <sup>1</sup>ARDPP <sup>6</sup>QEPGR <sup>11</sup>ADVWG, Control peptide-3 : <sup>1</sup>ARGRR <sup>6</sup>PIVIS <sup>11</sup>MDYWG.

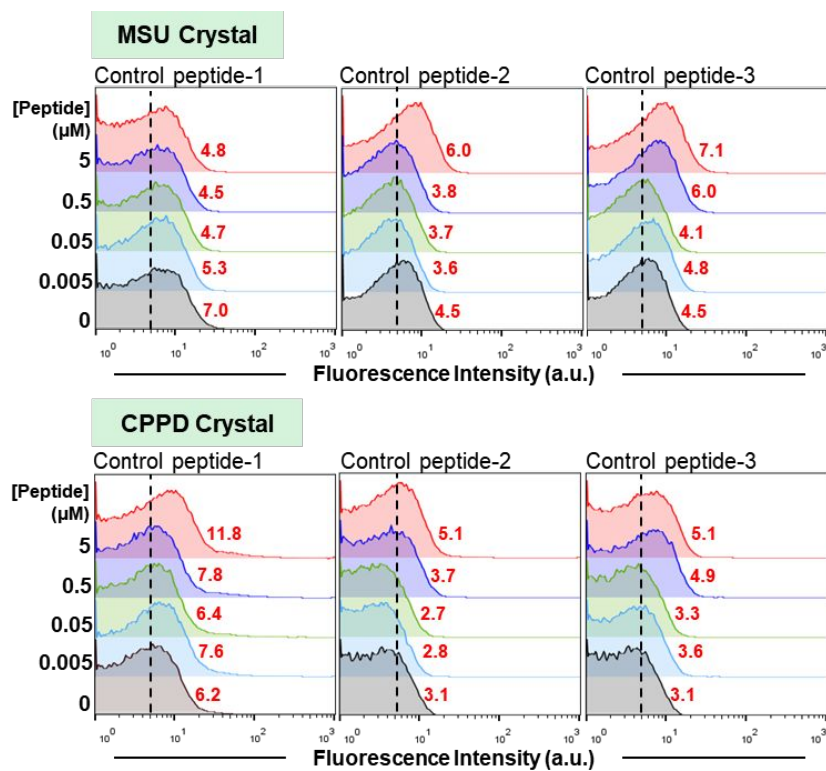
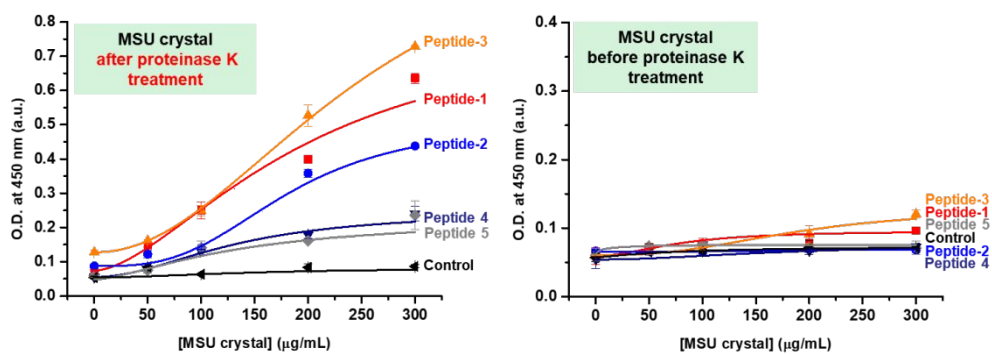


Figure S4. Chromogenic assay results before and after the proteinase K treatment to (a) MSU and (b) CPPD crystals.

(a)



(b)

