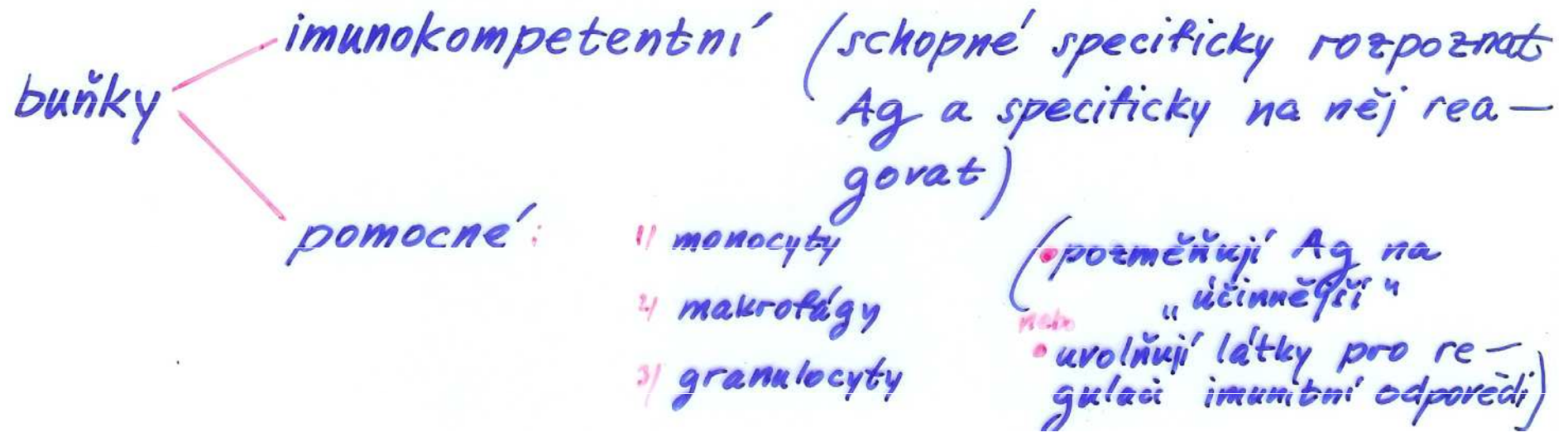
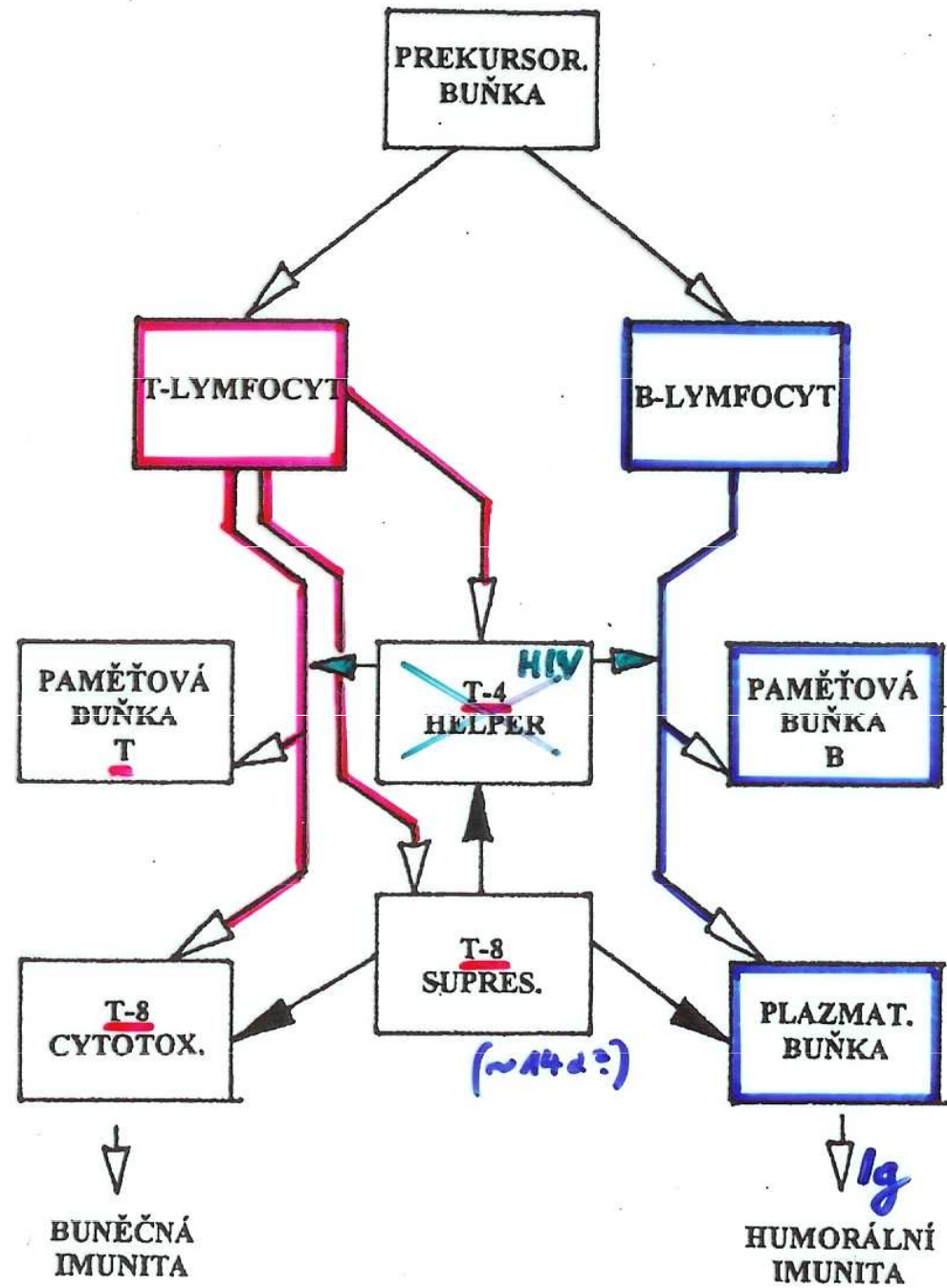
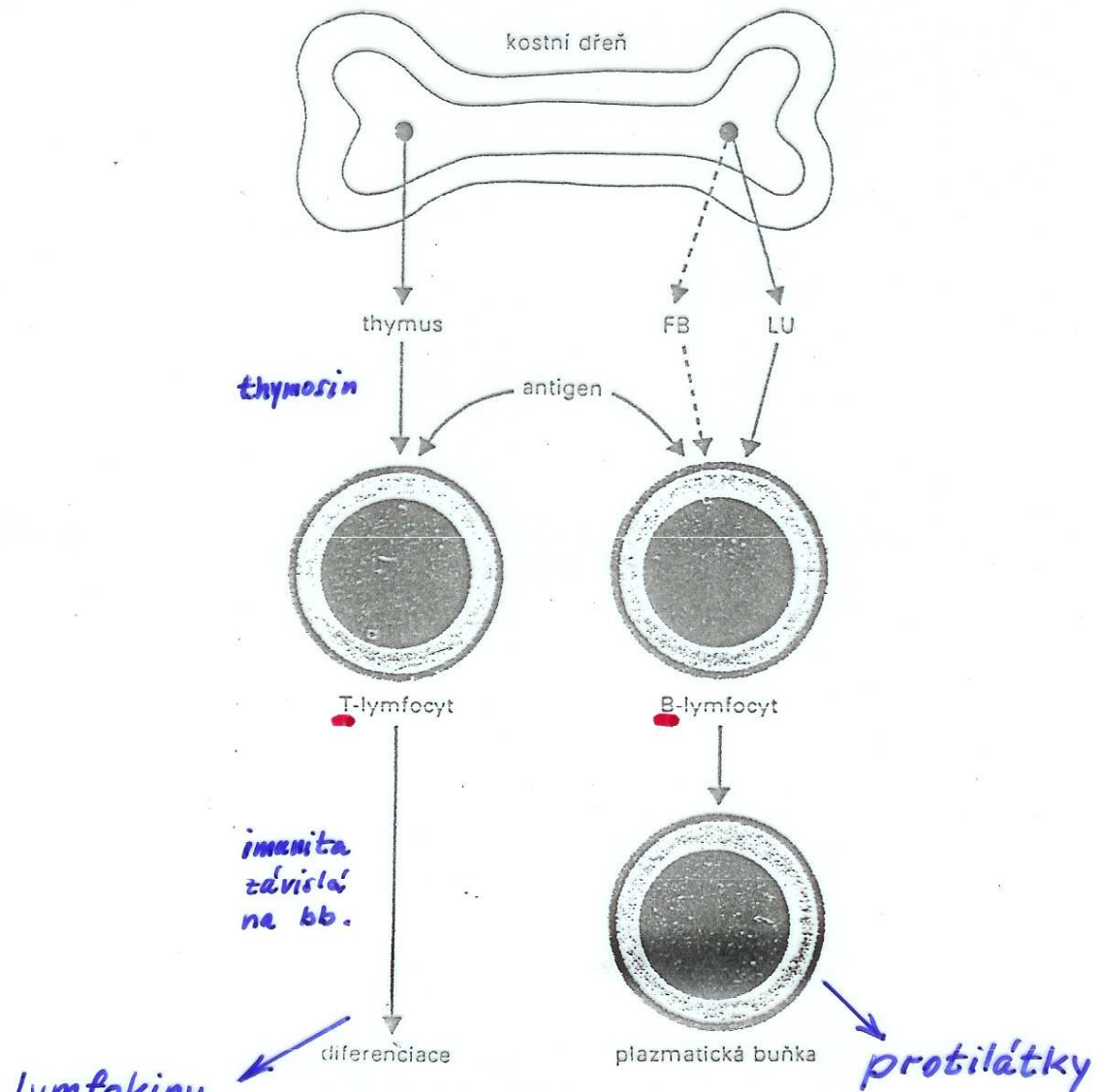


IMMUNO

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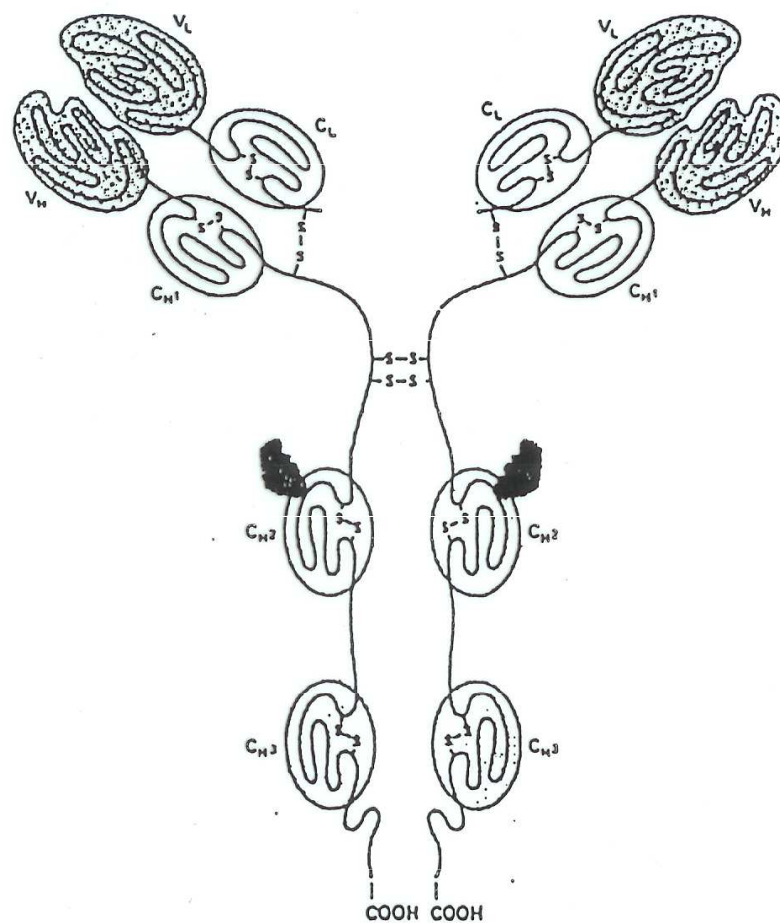


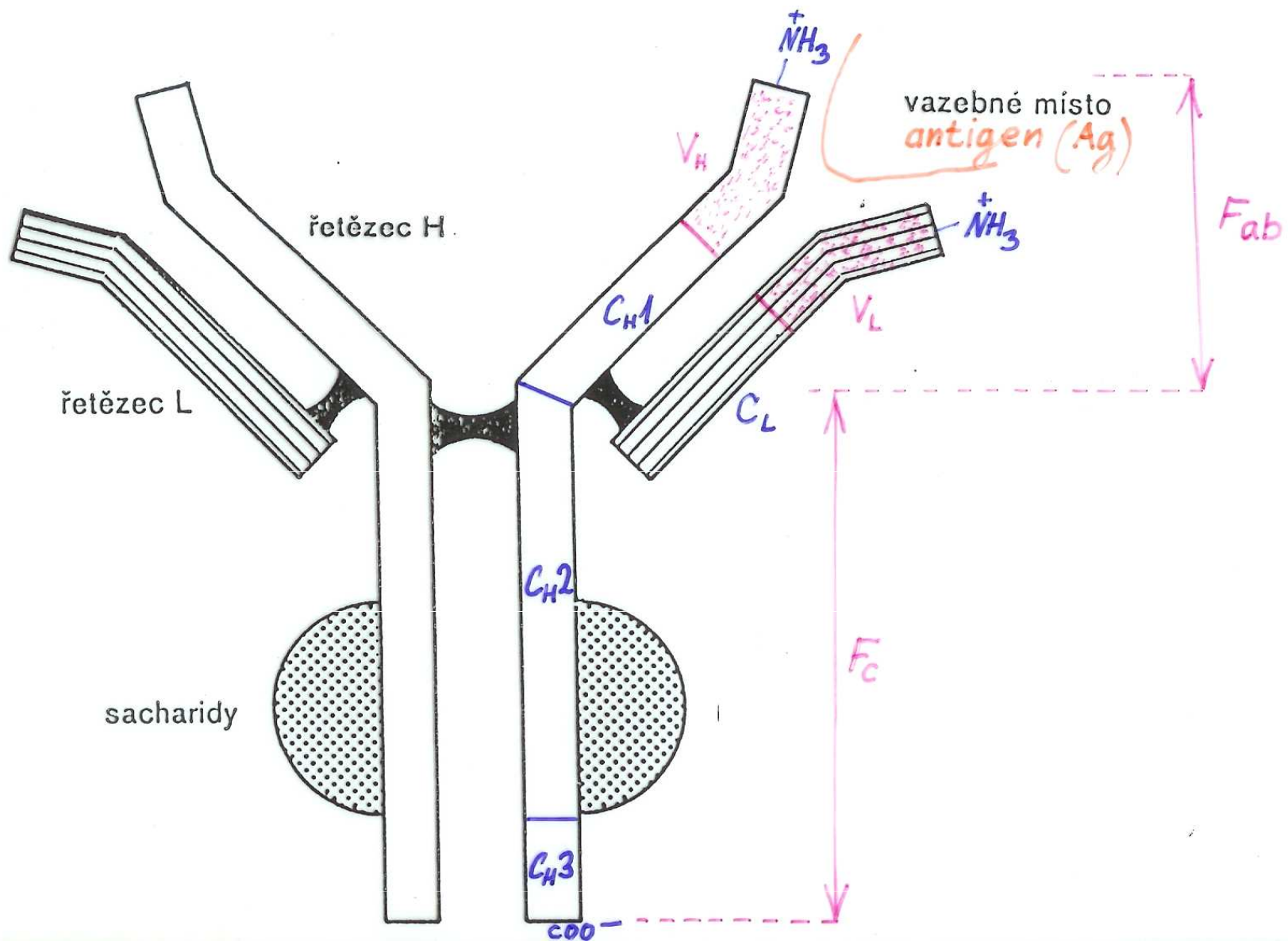
Původ lymfocytů T a B a jejich další osud. FB = Fabriciova burza u ptáků, LU = dosud neidentifikovaná centra lymfatických uzlin u savců

" B-lymfo → Ab "

Struktura imunoglobulinu (IgG nebo sérový IgA)

Structure of Immunoglobulin (IgG or Serum IgA)





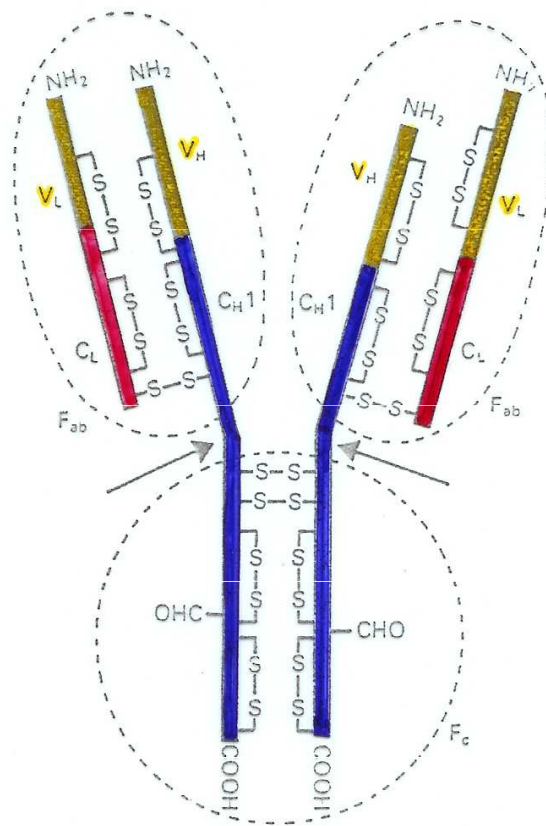
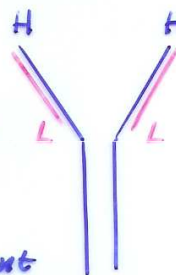


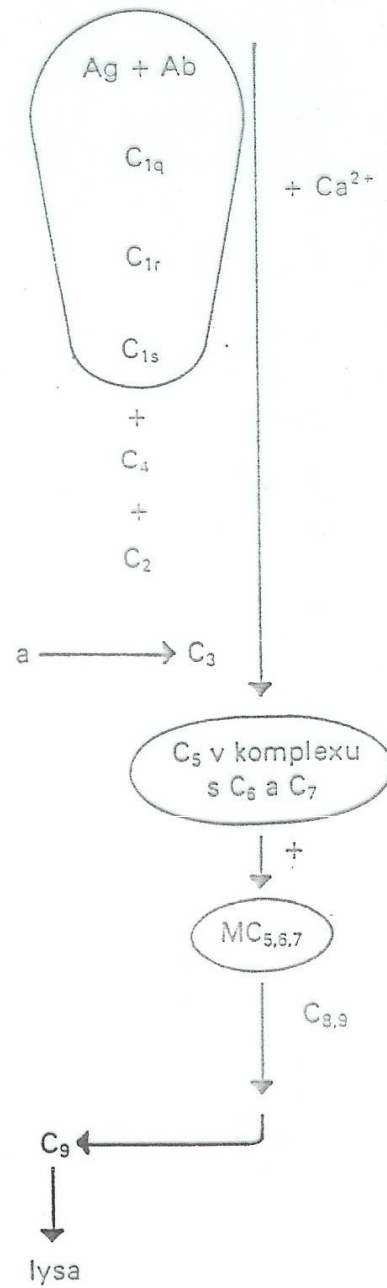
Schéma struktury IgG s vyznačením disulfidových vazeb v řetězcích i mezi nimi, vazby sacharidového podílu (-CHO) a vyznačení místa štěpení molekuly papainem (šipky) a fragmenty F_c a Fab. Tmavě jsou označeny variabilní oblasti (V), zbytek jsou oblasti konstantní (C)

heavy (z angl.) = těžký ~ 440AA
 light (z angl.) = lehký ~ 220AA

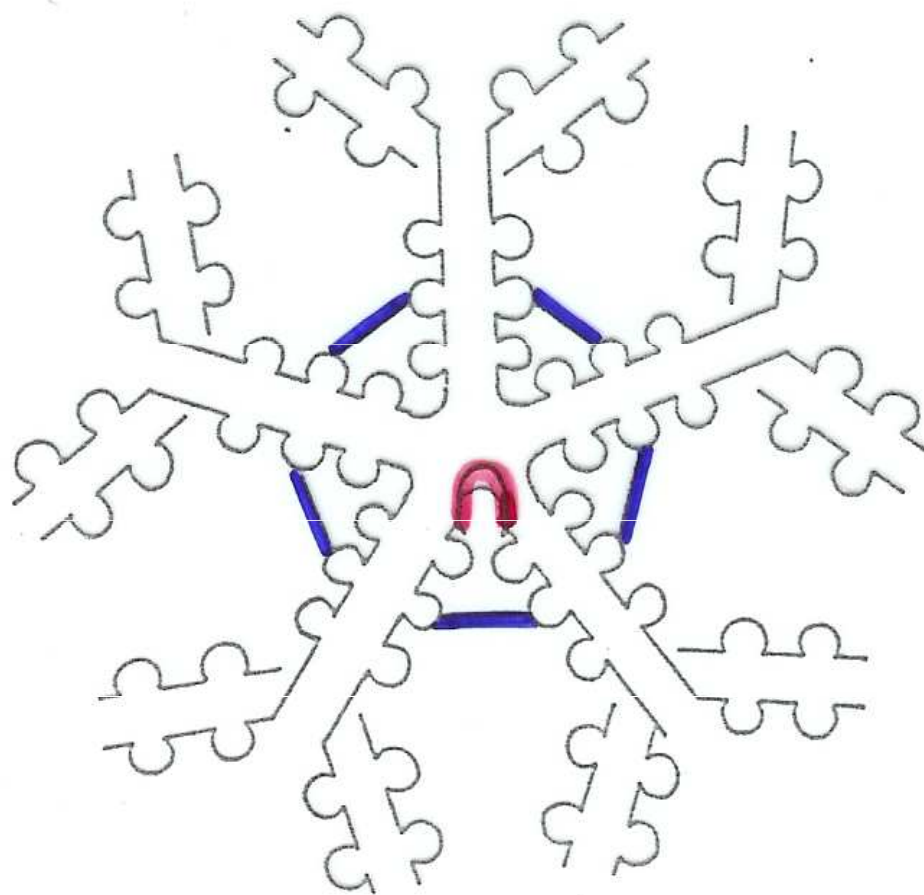


$M_r \sim 50.000$
 $M_r \sim 25.000$

antigen binding fragment / complement



„Klasická“ dráha aktivace složek komplementu (silně zjednodušeno); a = alternativní dráha aktivace.

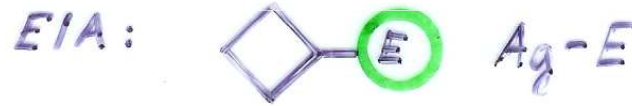


Struktura imunoglobulinu
M. Červeně: J-řetězce, modře: dodatečné disulfidové vazby

IgM

EIA = enzymová imunoanalýza

enzyme immuno-assay
<enzaim ,imju:nau 'æsei>



1) homogenní EIA



vazbou změna aktivity E

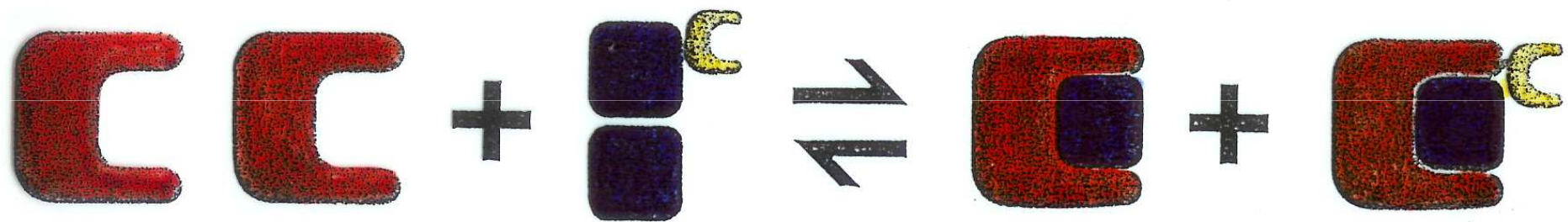
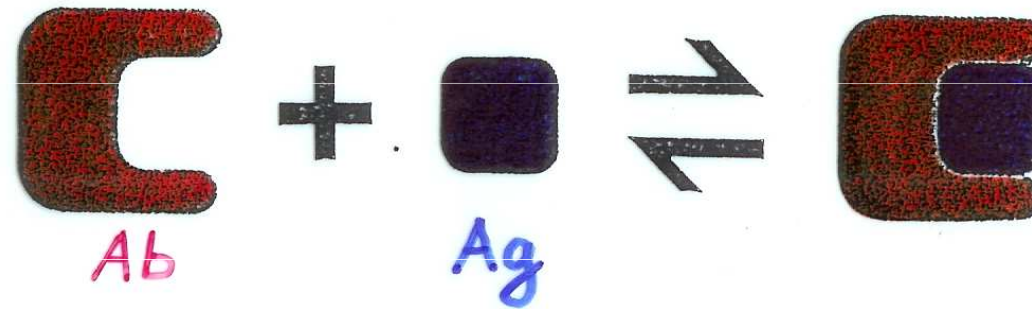
např. EMIT = enzyme multiplied immunoassay technique
<enzaim multiplaid ,imju:nau 'æsei
(rozmnóženy svařobeny) tekhník>

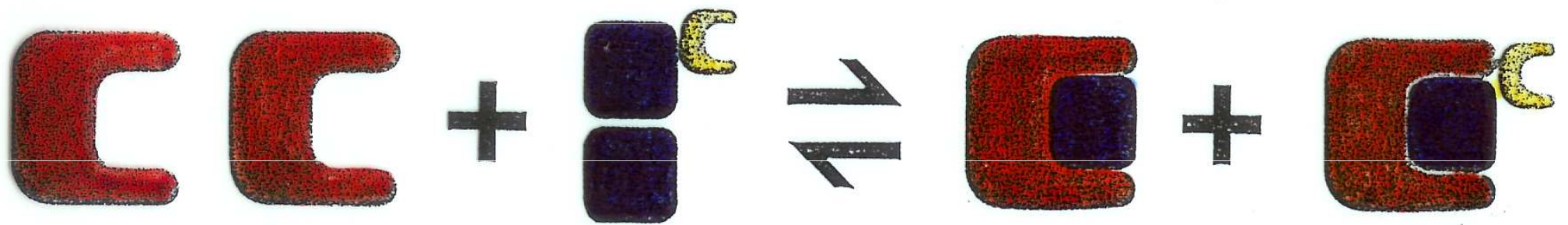
2) heterogenní EIA

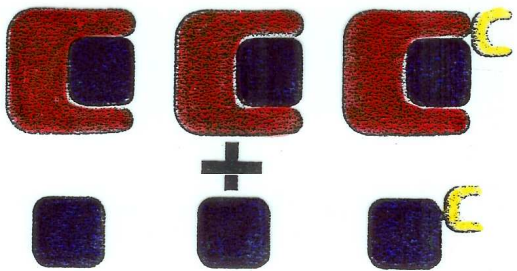
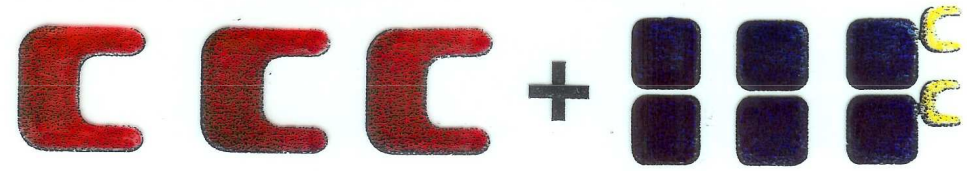
např. ELISA = enzyme-linked immunosorbent assay
<enzaim linkt i'mju:nau'so:bant 'æsei>
(vazany)

EIA

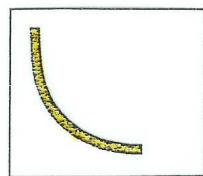
(ENZYM IMMUNASSAY)







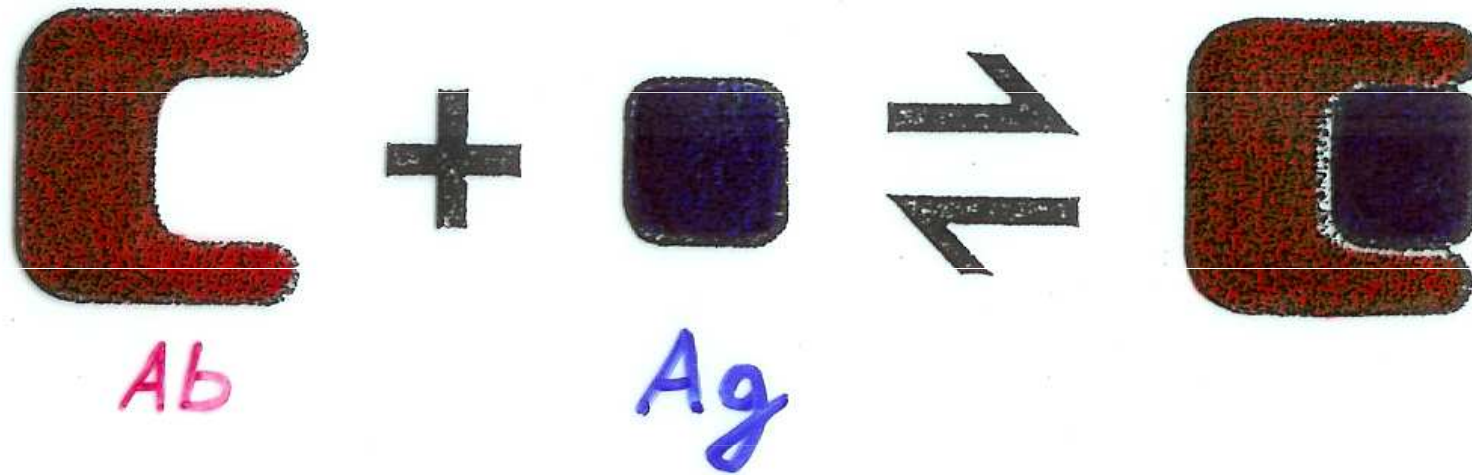
ODDĚLENÍ VÁZANÝCH
 A VOLNÝCH Ag
 → „heterogenní“ analýza



Patient Report
 Name: Karel Ivanhoe
 Number: 123456
 Ward: Internal Med
 Physician: Dr. M. Stojanovic
 Date: 10/10/10

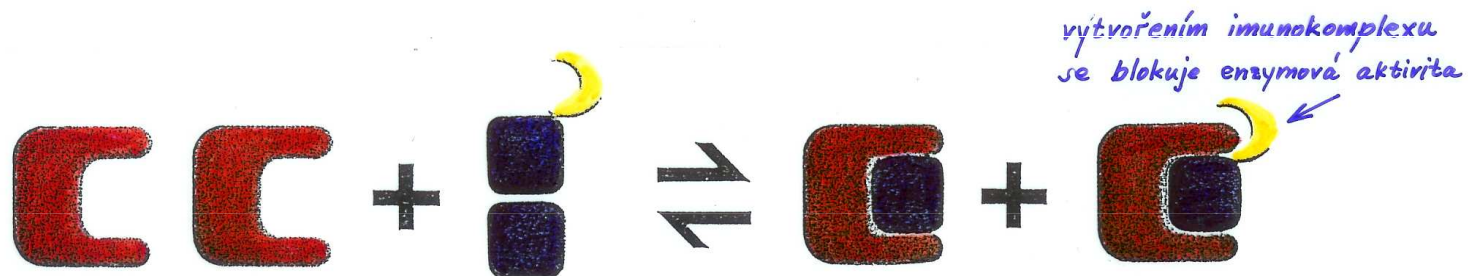
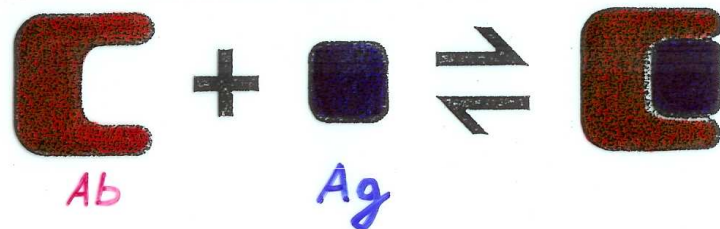
EMIT[®]

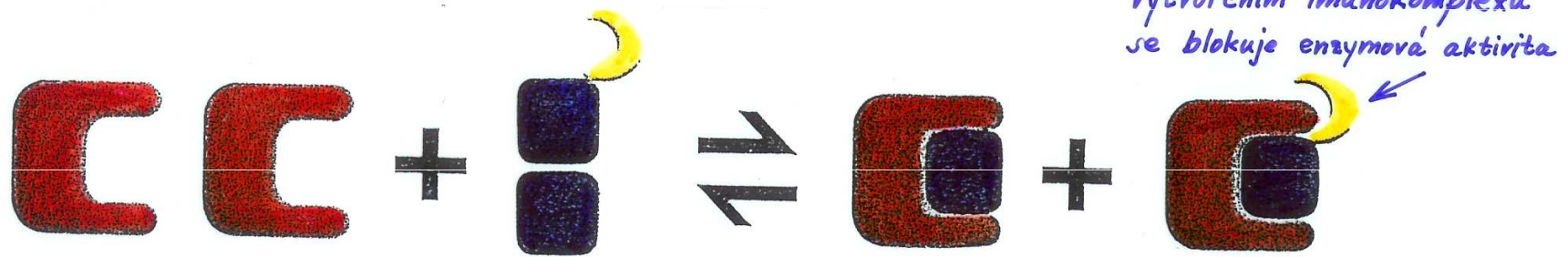
[®] - Registered Trade Mark of Syva Corporation Inc, USA.

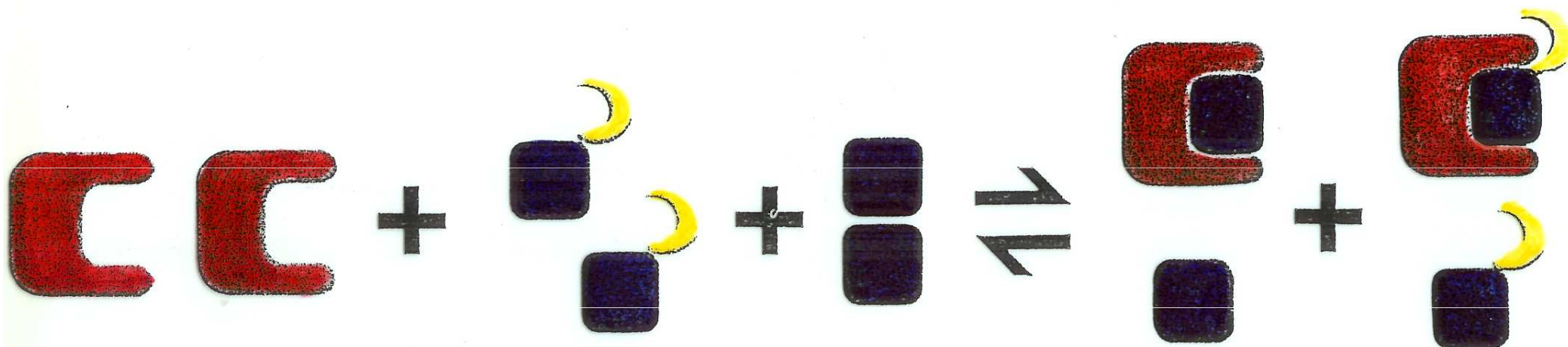


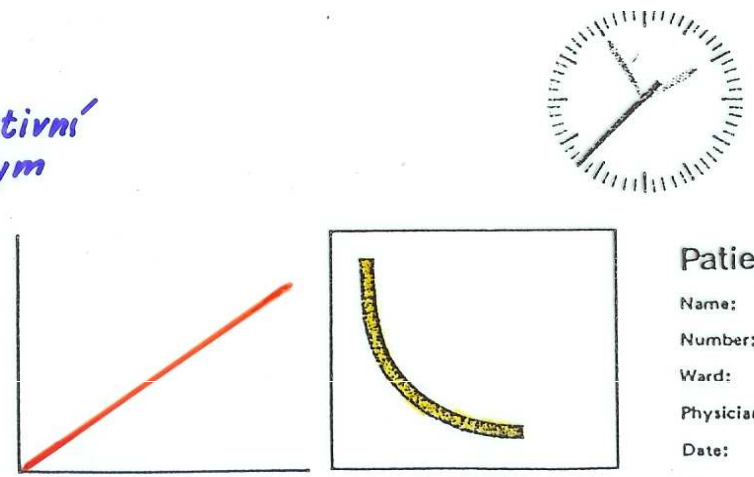
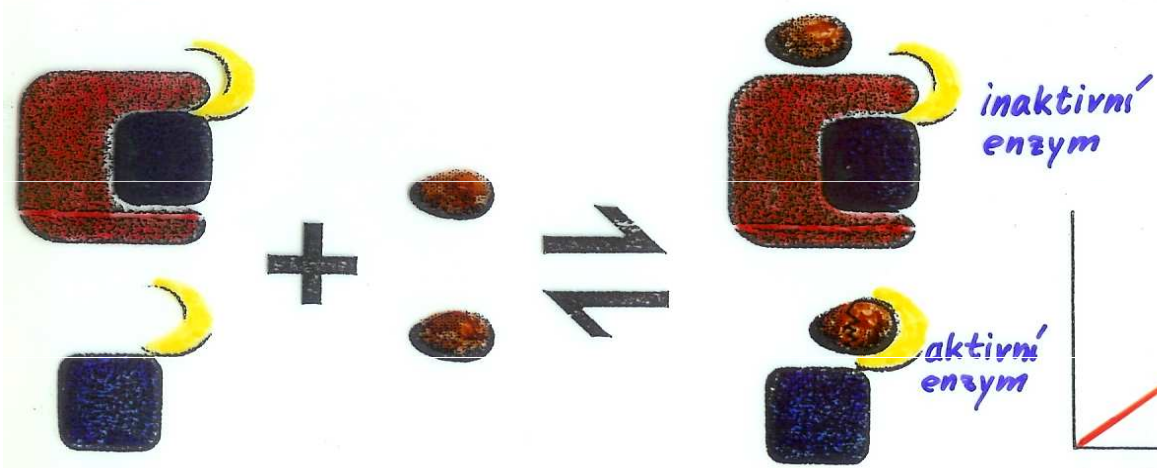
EMIT[®]

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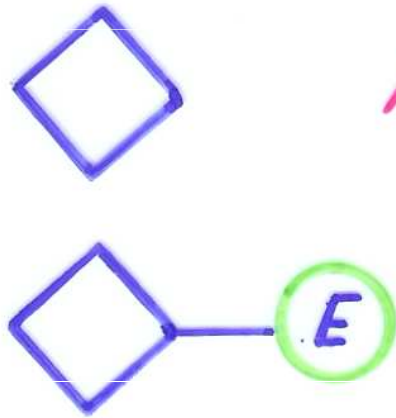
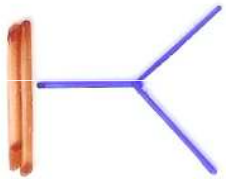






Patient Report
 Name: Karl Kuchner
 Number: 123456
 Ward: 123456
 Physician: Dr. K. Kuchner
 Date: 12.12.12

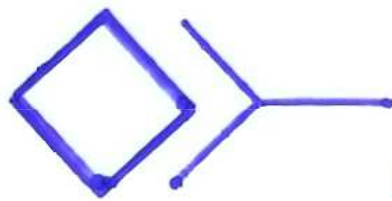
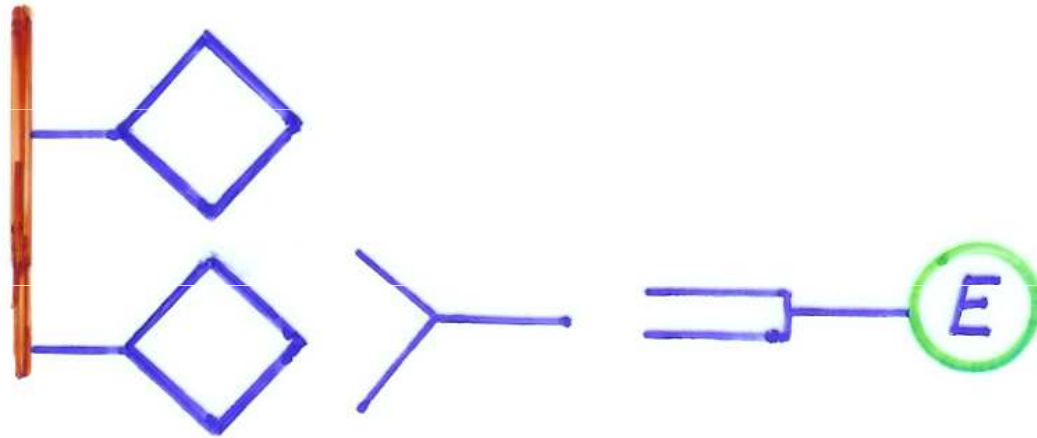
prima' kompetitivni' ELISA



Ag = ?

$\uparrow [Ag] \rightarrow \downarrow E \text{ signal}$

neřímá kompetitivní ELISA

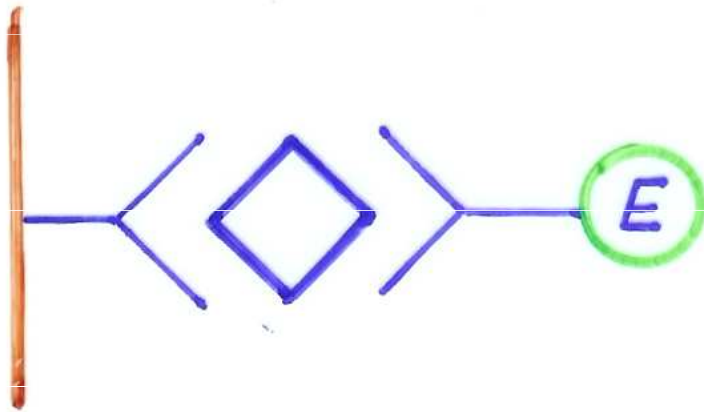


$Ag = ?$



vypláchnou se

$\uparrow [Ag] \rightarrow \downarrow E\text{-signál}$



přímá nekompetitivní ELISA
(sendvič)

Ag = ?

$\uparrow [Ag] \rightarrow \uparrow E\text{-signál}$

