

Pathologische oncologie

Ronde 2014.6

Erik Thunnissen :

Pathologie Vumc

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Disclosures

- Lung cancer
 - Adv board: MSD, Pfizer, Clovis
 - Grants: IIR Pfizer, Astra Zeneca

Pathologische oncologie

Ronde 2014.6

CK20

CK7

TTF1

Synaptophysine

Chromogranine

CD56

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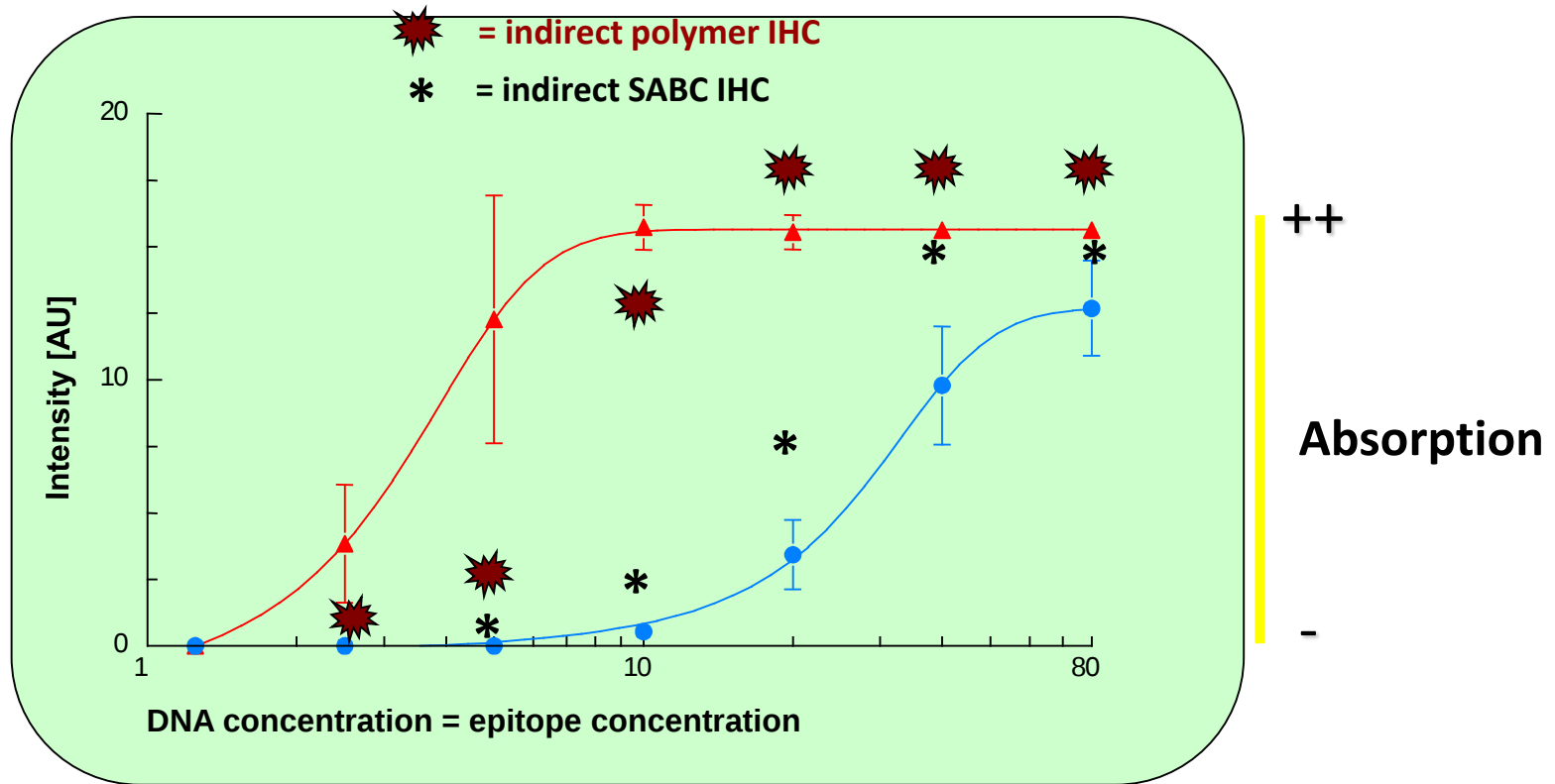
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Ronde 2014.6

- Inschrijvingen: n=34
- Ingestuurde coupes: n=30
- CK20 en CK7: sens: goed, sporadisch achtergrond
- TTF1: sens goed (n=1 FN); n=3 lever FP
- Syn: Meeste goed (12 matig of FN)
- Chromo:meeste goed (1 zwak en 1 FN)
- CD56 meeste goed (1 zwak en 2 FN)

Model Quantitation immunohistochemistry

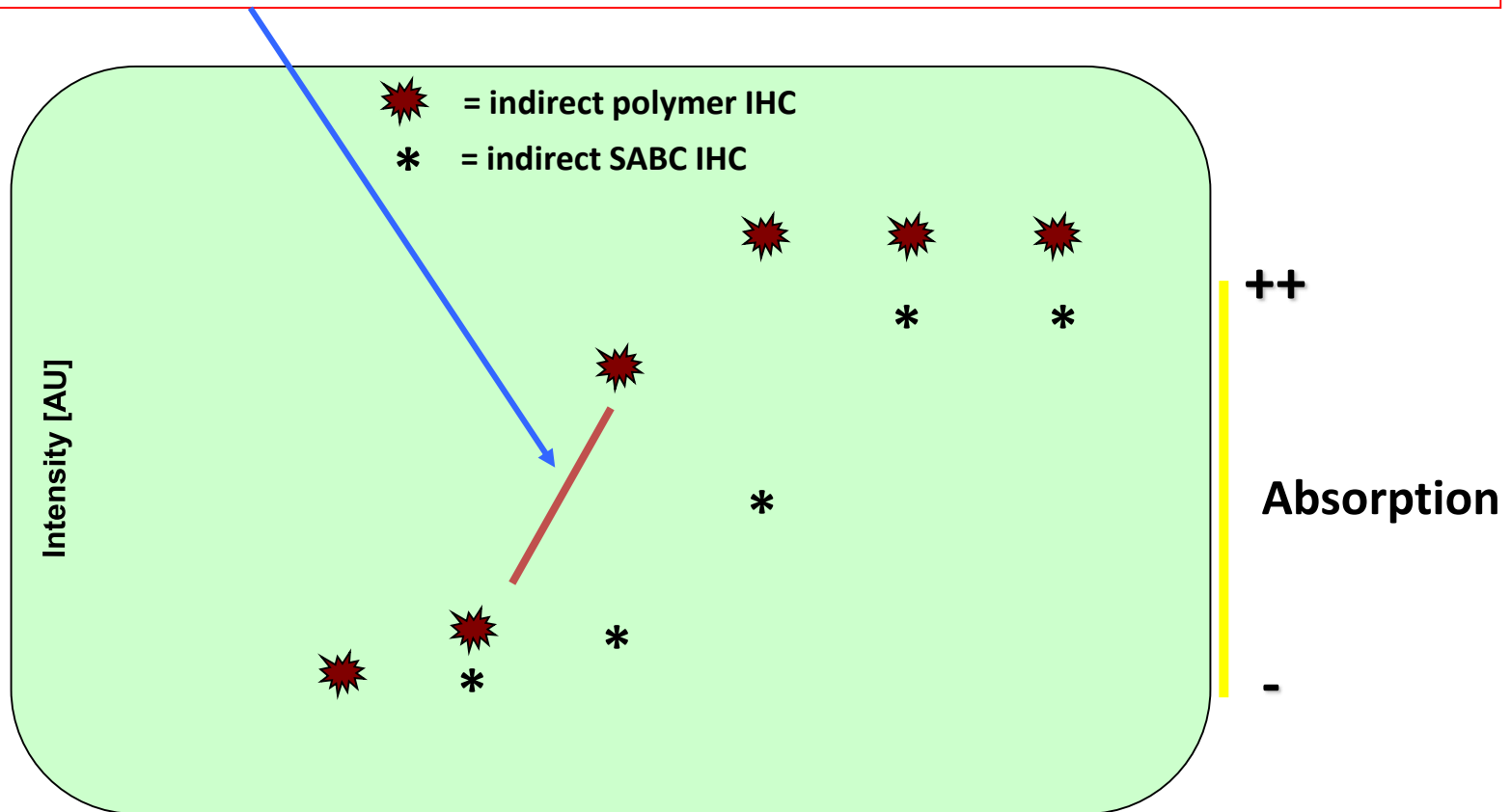
Indirect tyramide/polymer IHC vs. indirect SABC IHC



Semi Q: - - - +/- + ++ ++

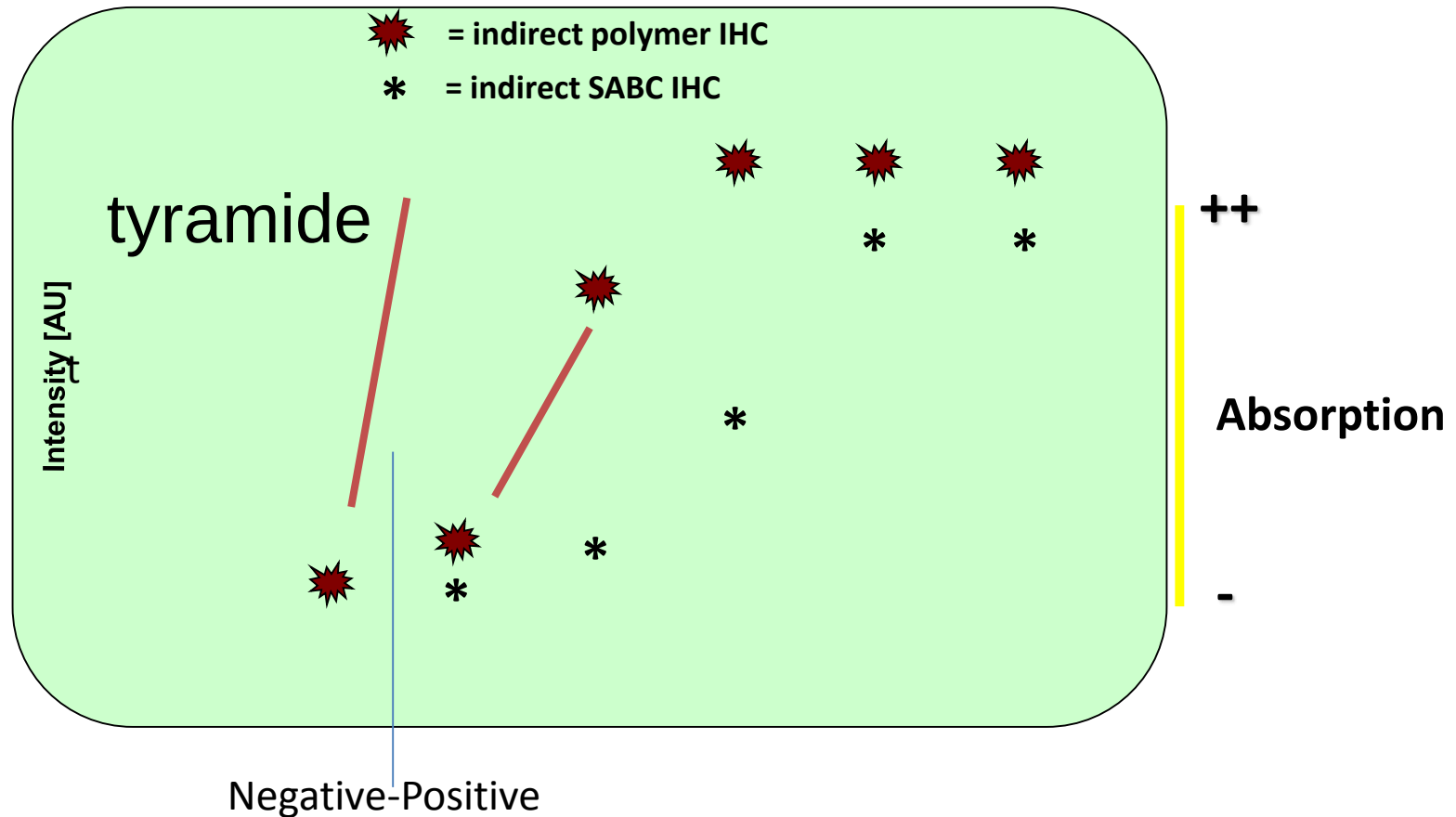
Absorption

**Linear dynamic range = quantitative range,
more signal enhancement:
closer to black and white; positive/ negative**



Difference between positive and negative: factor 2 in concentration

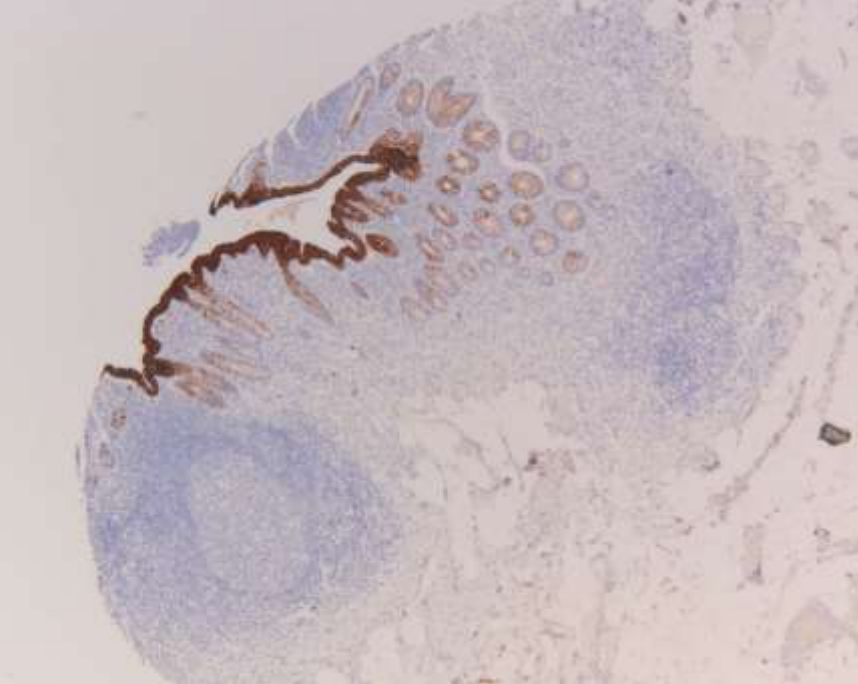
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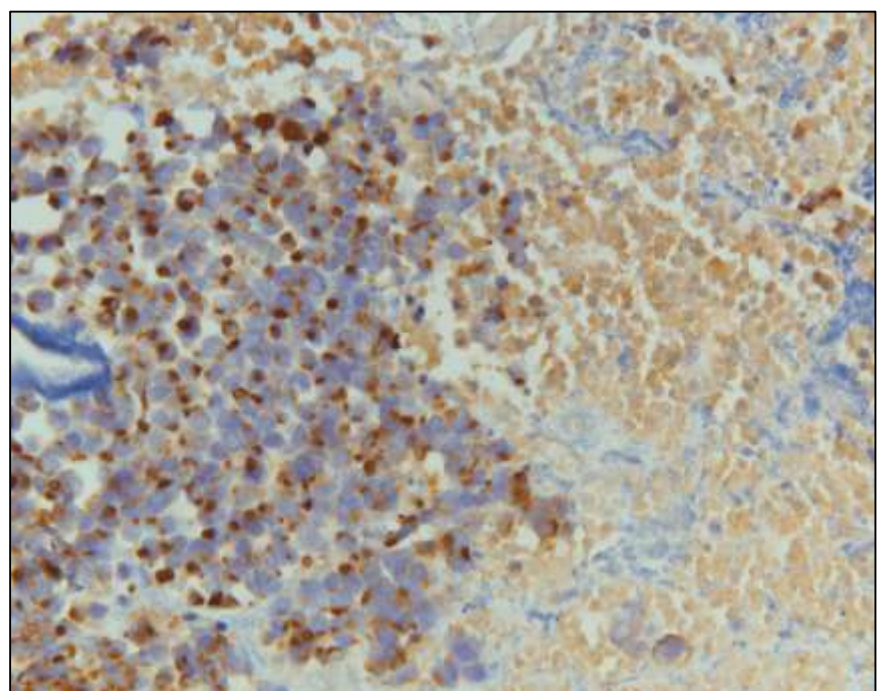
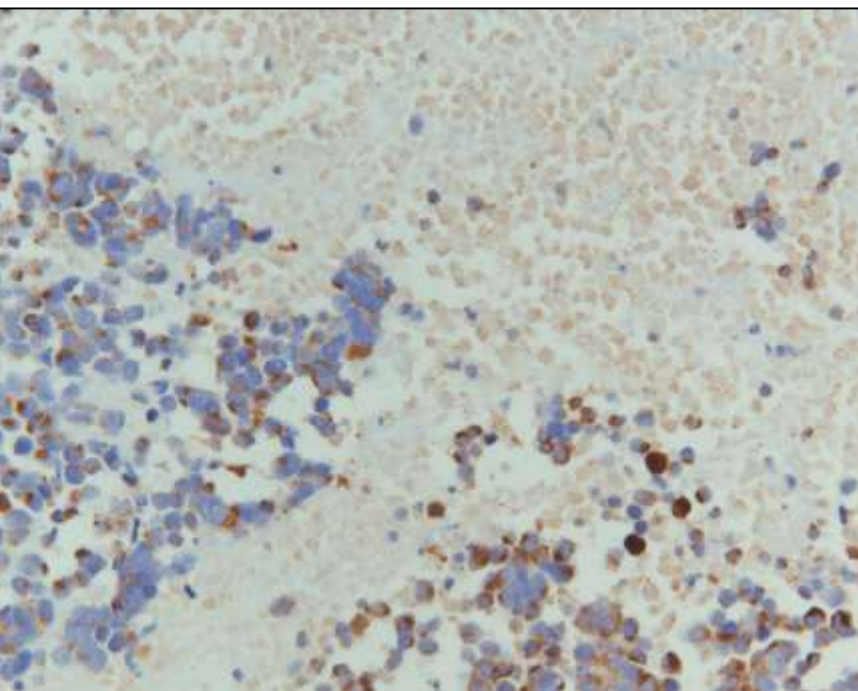
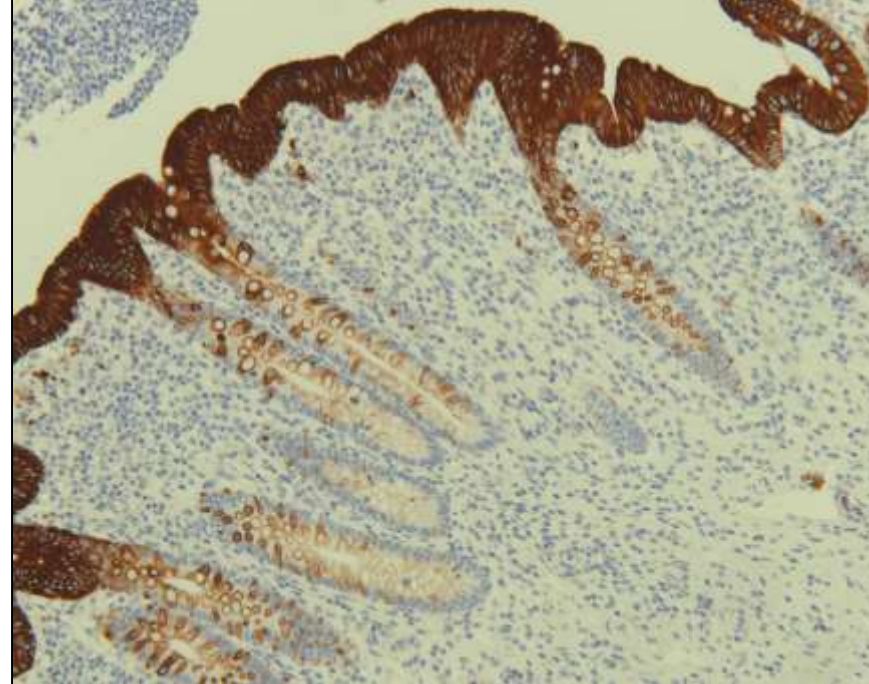
CK7 en CK20

- CK7 (type II) en CK 20 (type I) member cytokeratin family

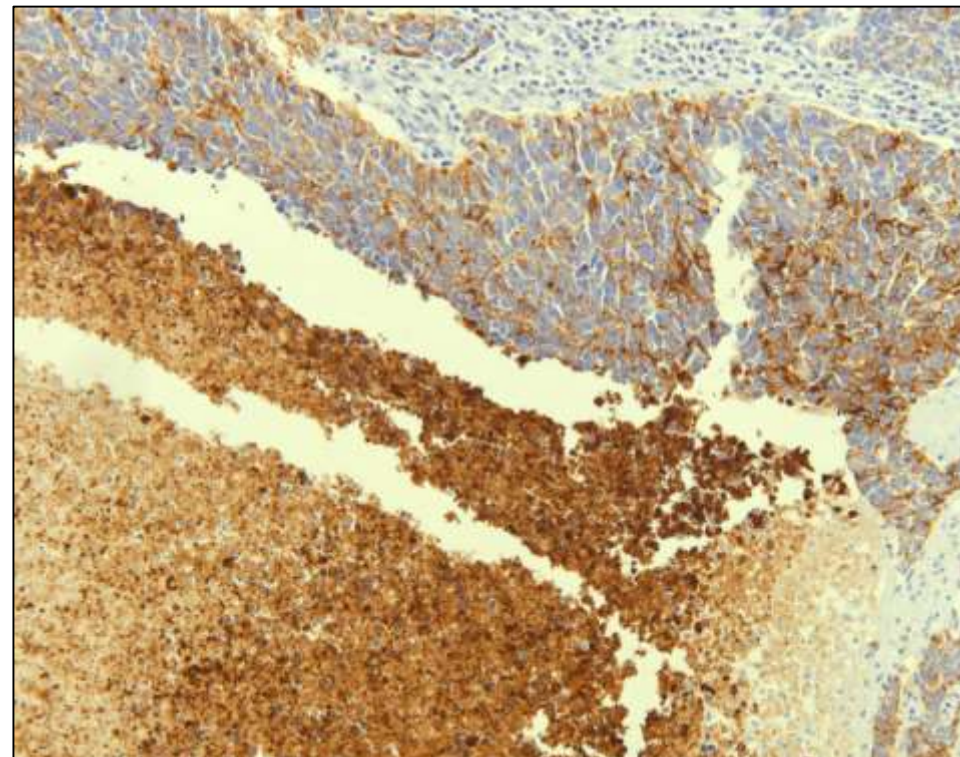
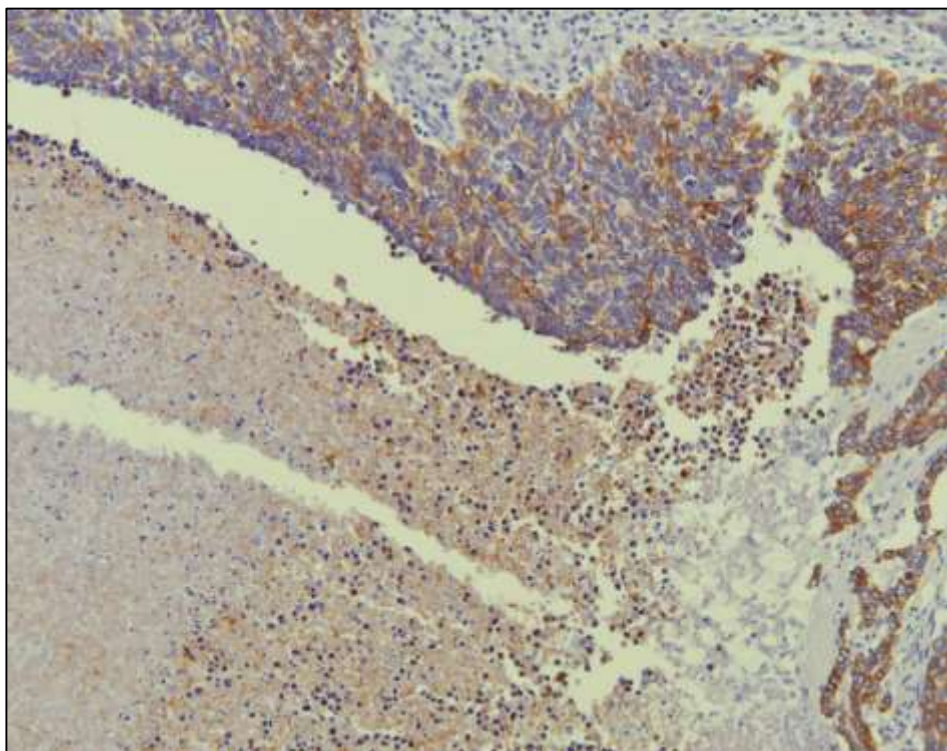
• IHC	CK7	CK20
• Breast	+	-
• Lung	+	-
• Urothelium	+	+/-
• Colon/stomach	-	+
• Prostate	+/-	+/-
• Ovary	+	-
• Merkel cell	-	+



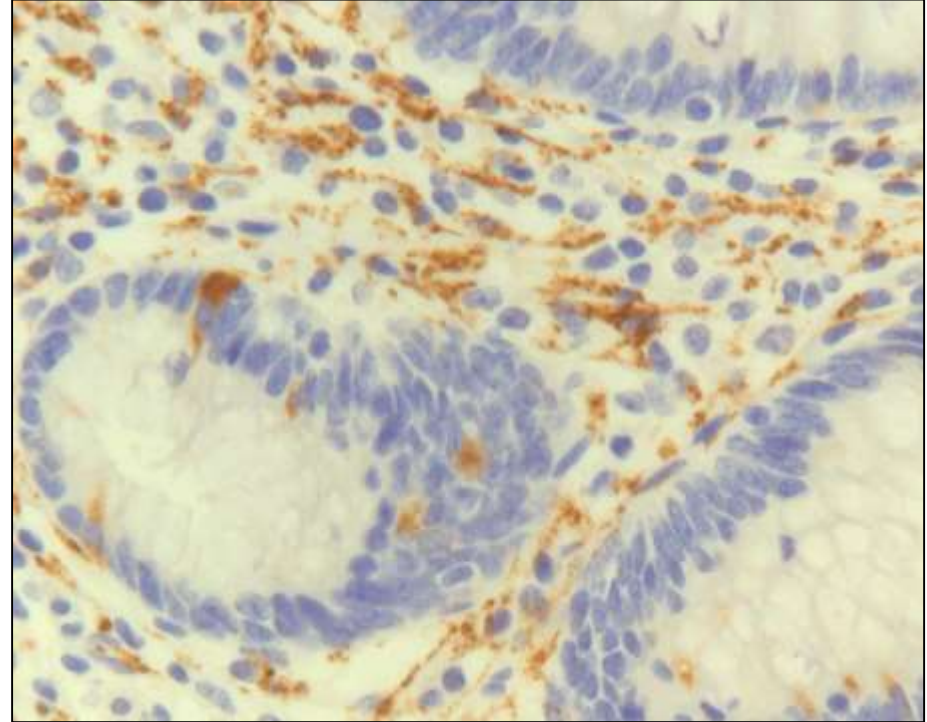
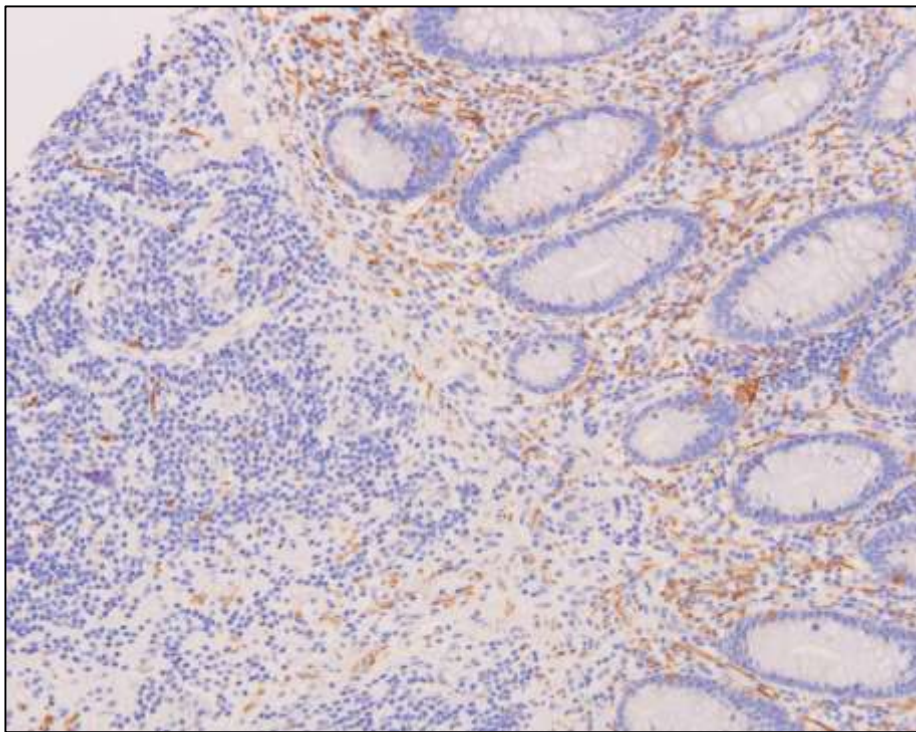
CK20



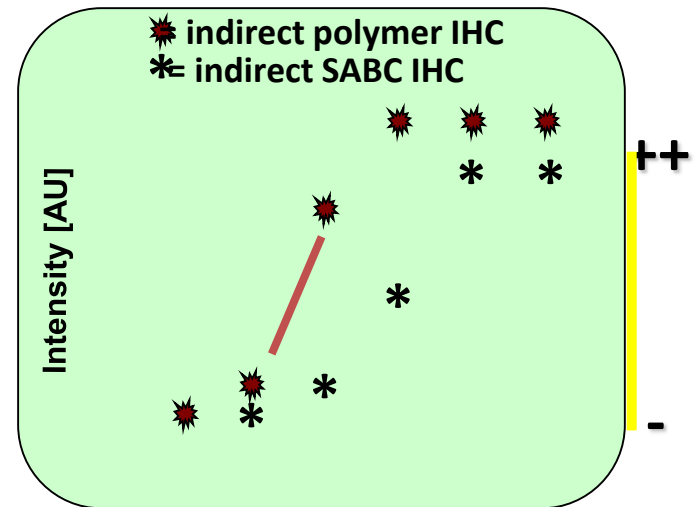
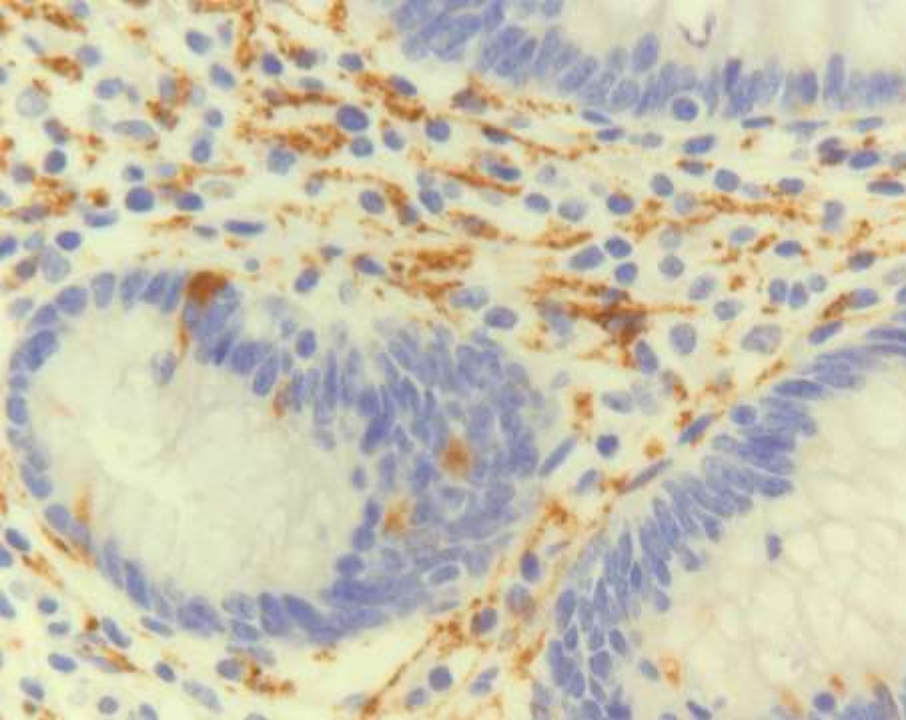
CK7



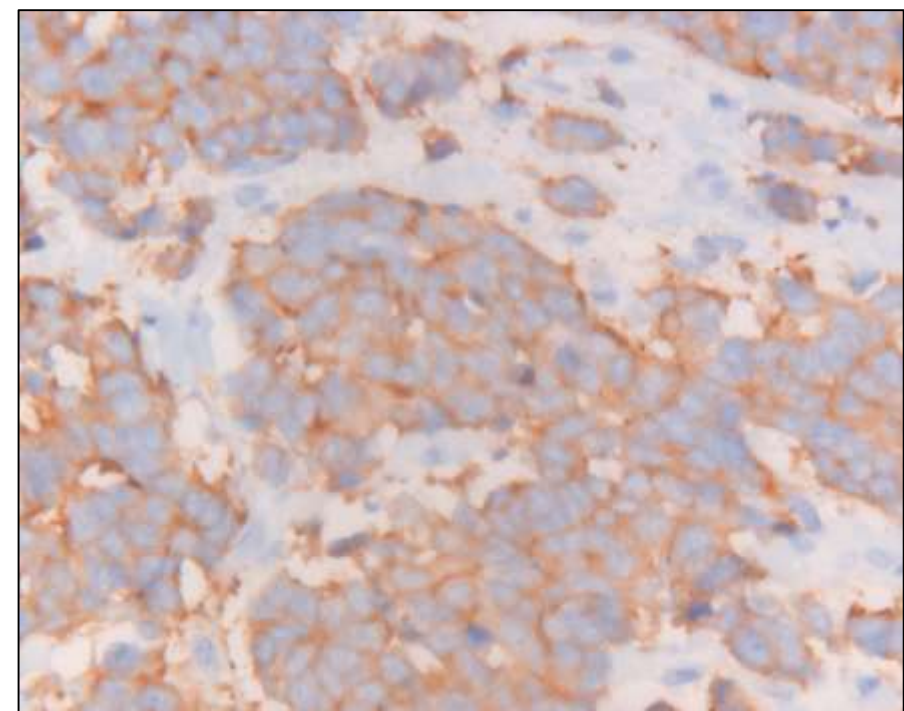
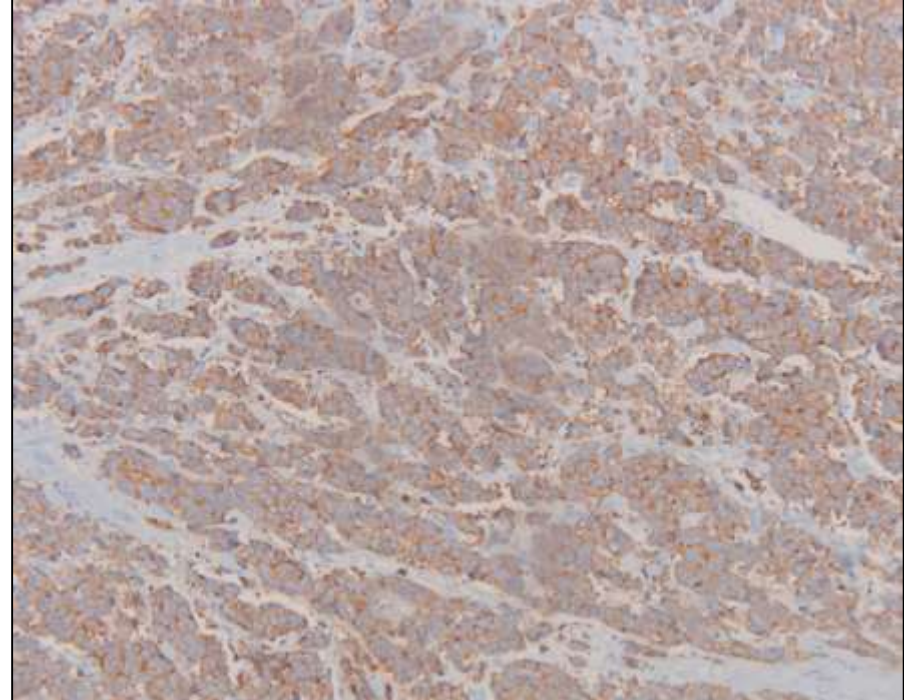
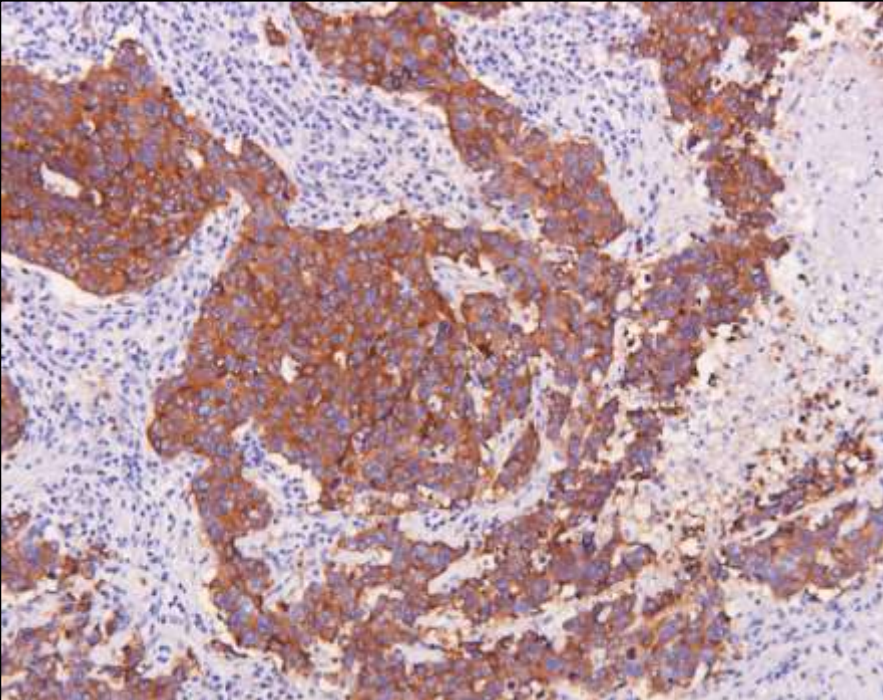
Synaptophysin



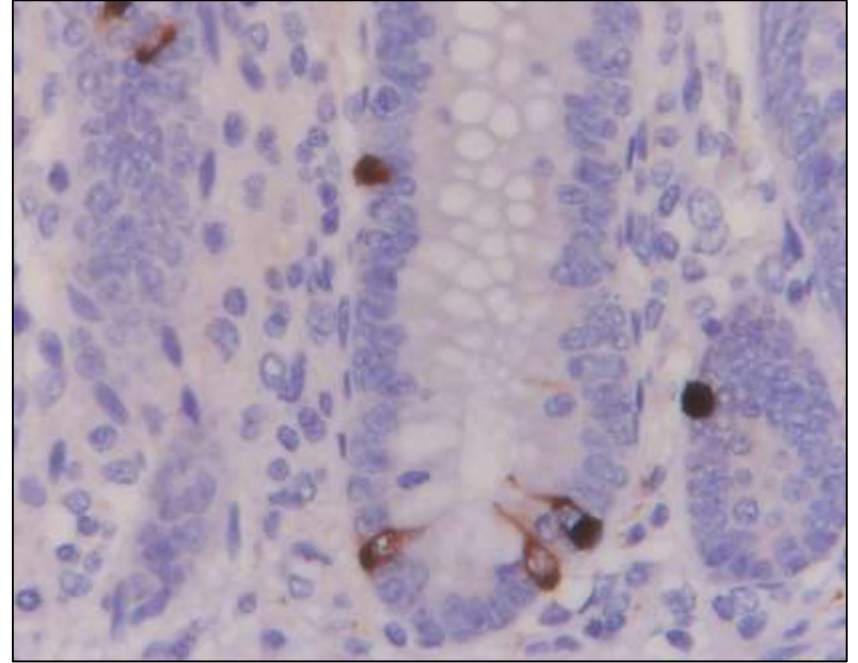
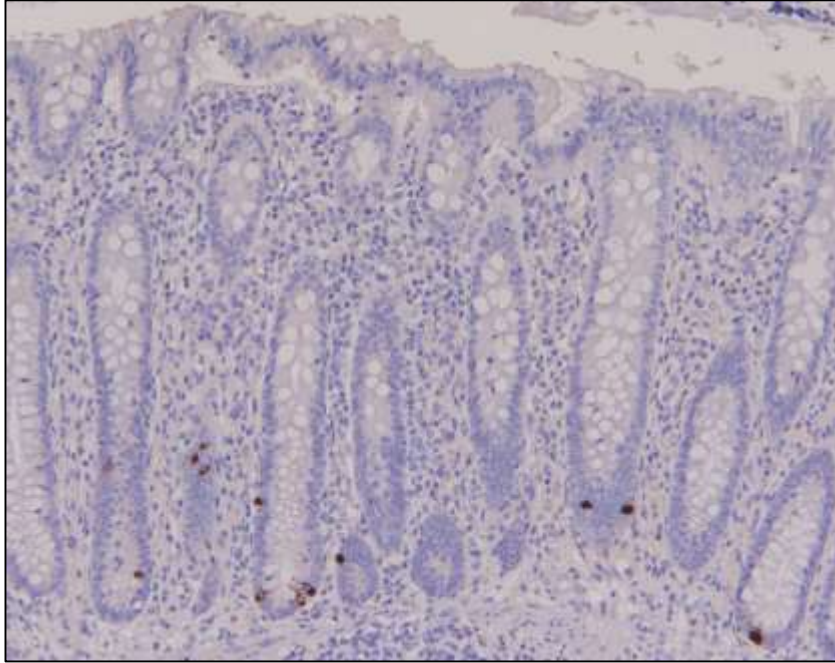
- Synaptic vesicle glycoprotein with four transmembrane domains weighing 38kDa
- Neurons, Neuroendocrine (NE) cells
- Probably epitope concentration lower in NE cells than in neurons



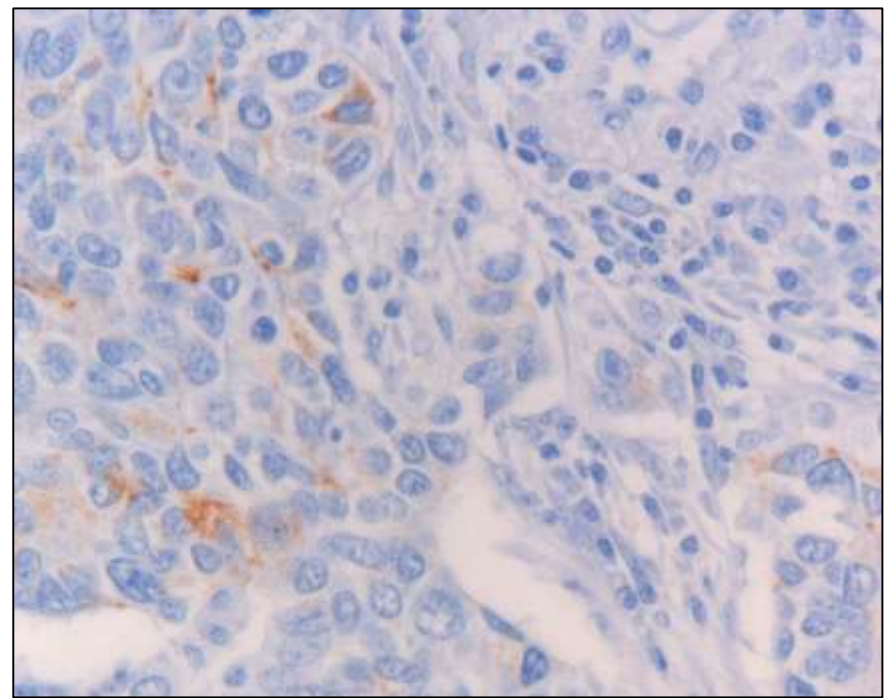
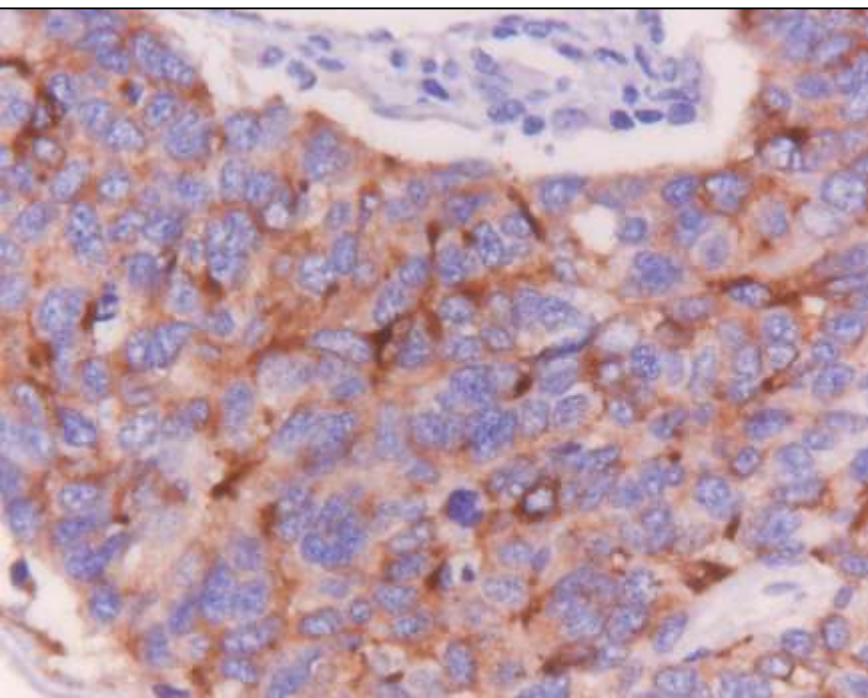
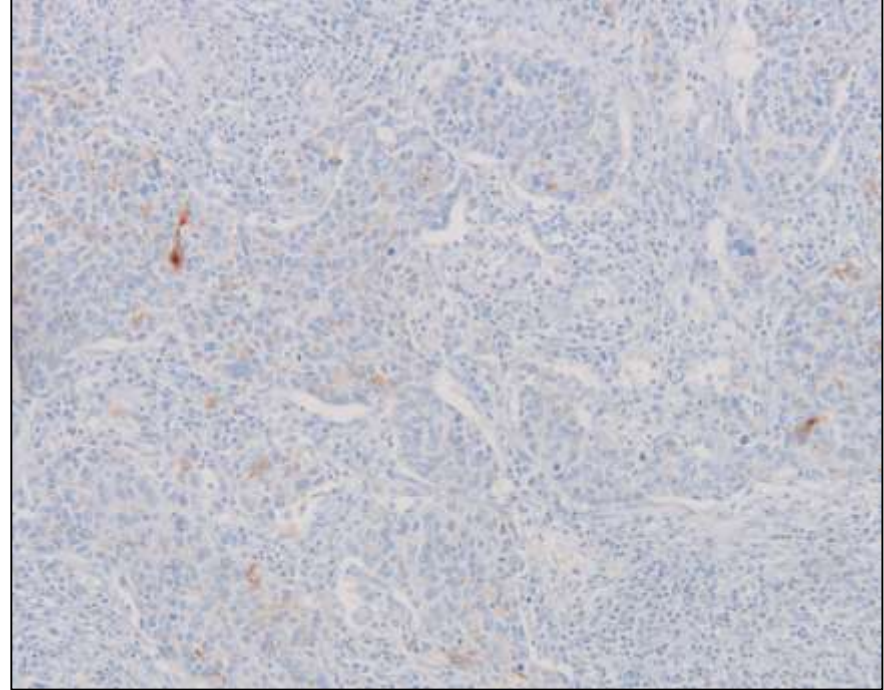
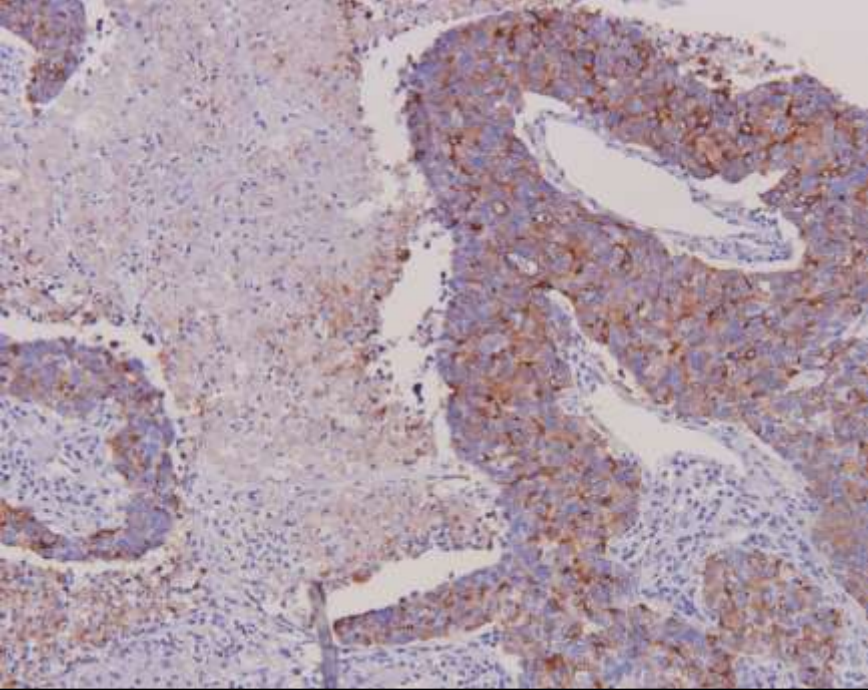
IHC NE cel	tumoren			
	goed	matig	zwak	FN
Goed	4	1	1	0
Dubieus	1	2	0	0
Negatief	8	6	5	1

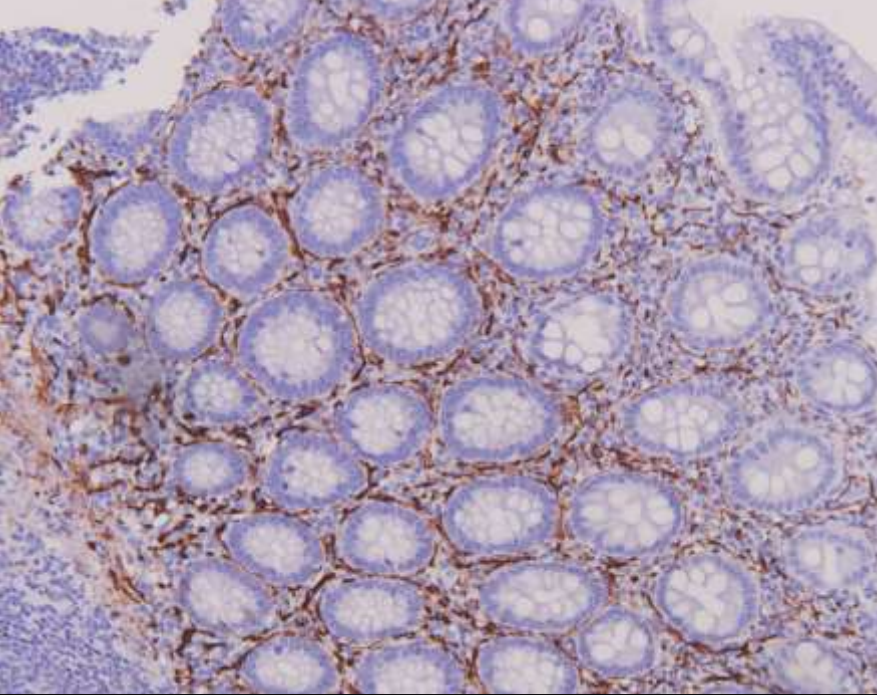


Chromogranin

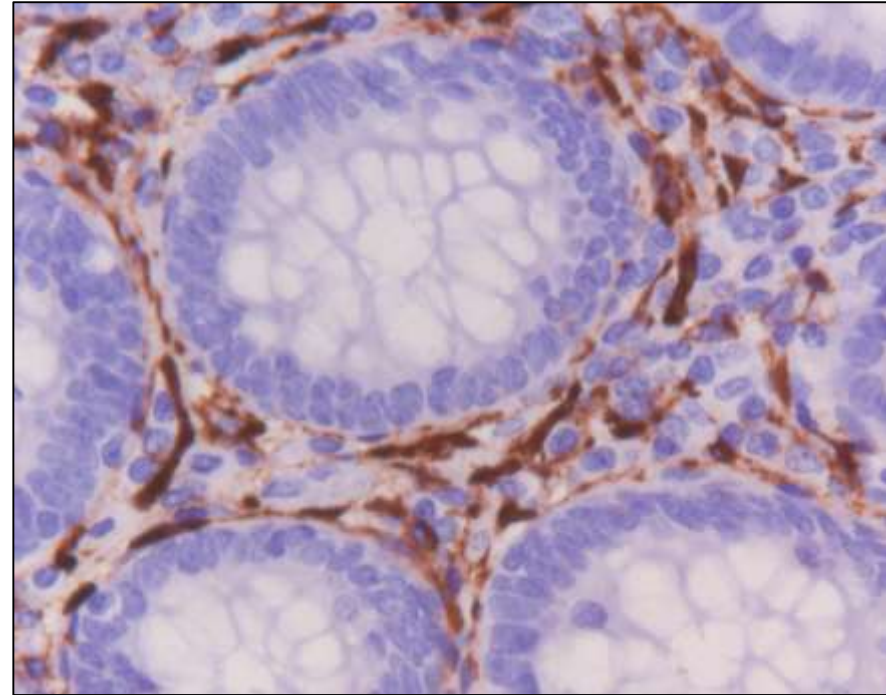


- **Chromogranin A** or **parathyroid secretory protein 1** (gene name **CHGA**) is a member of the granin family of neuroendocrine secretory proteins
- Secretory vesicles of neurons and endocrine cells
- Precursor of several functional peptides e.g. vasostatin-1, vasostatin-2, pancreastatin, catestatin and parastatin
- Negative feedback to paracrine signals of nearby cells

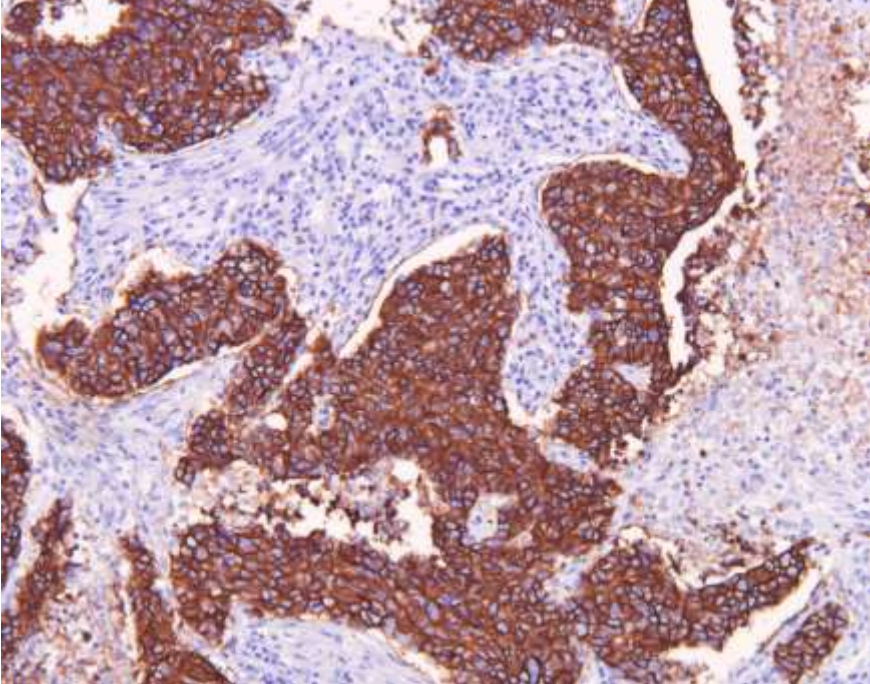




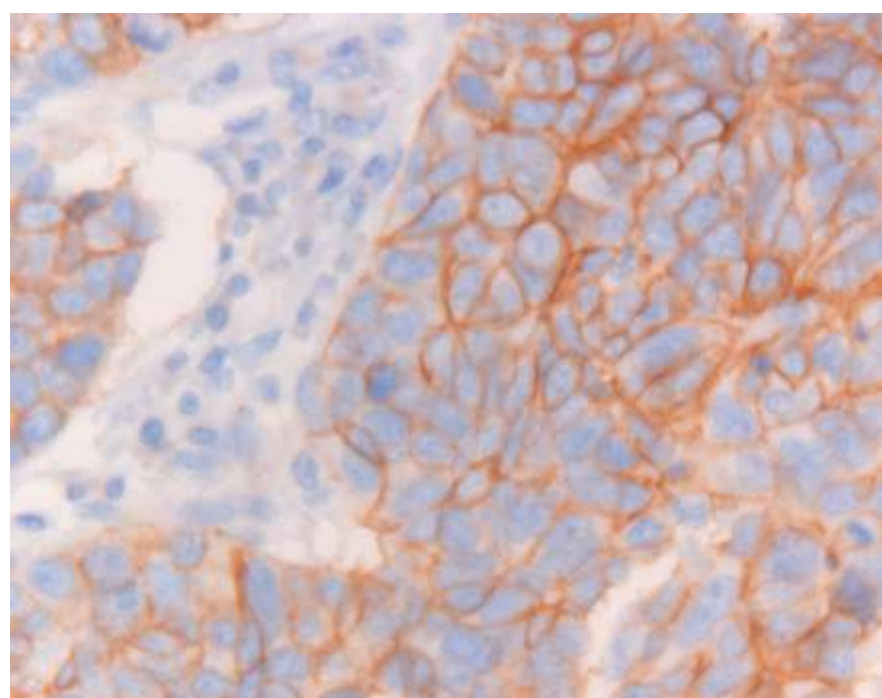
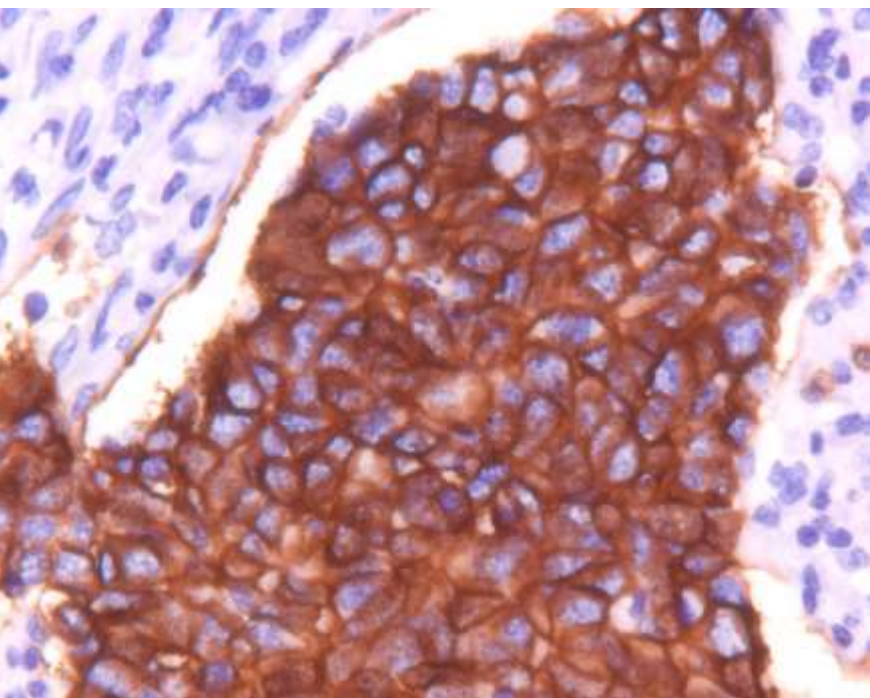
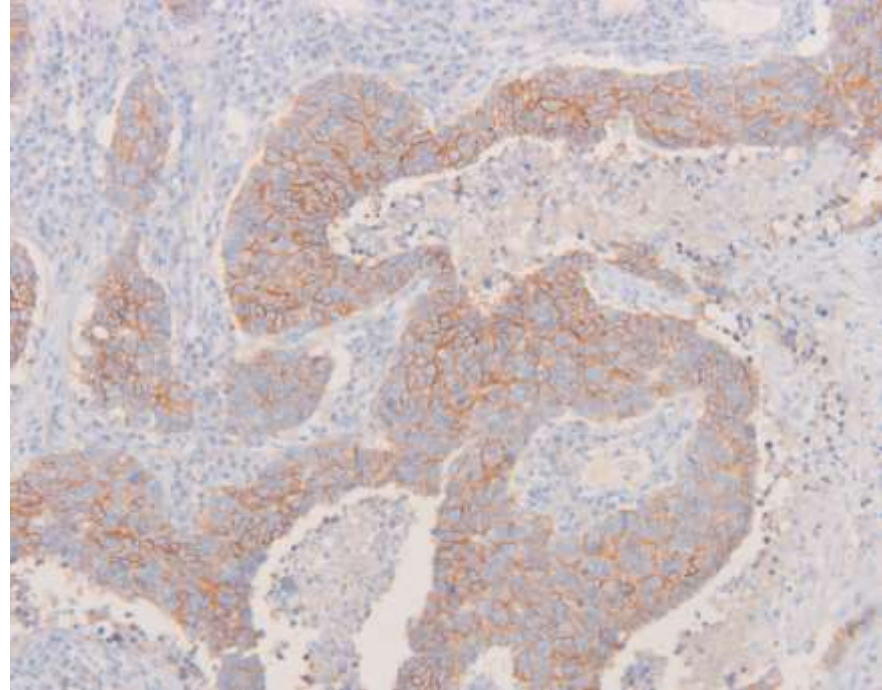
cd56



- Neural cell adhesion molecule (NCAM) **CD56**
- homophilic binding glycoprotein
- expressed on the surface of neurons, glia, skeletal muscle, NK cells
- Tumors: context of Lung carcinoma: neuroendocrine differentiation

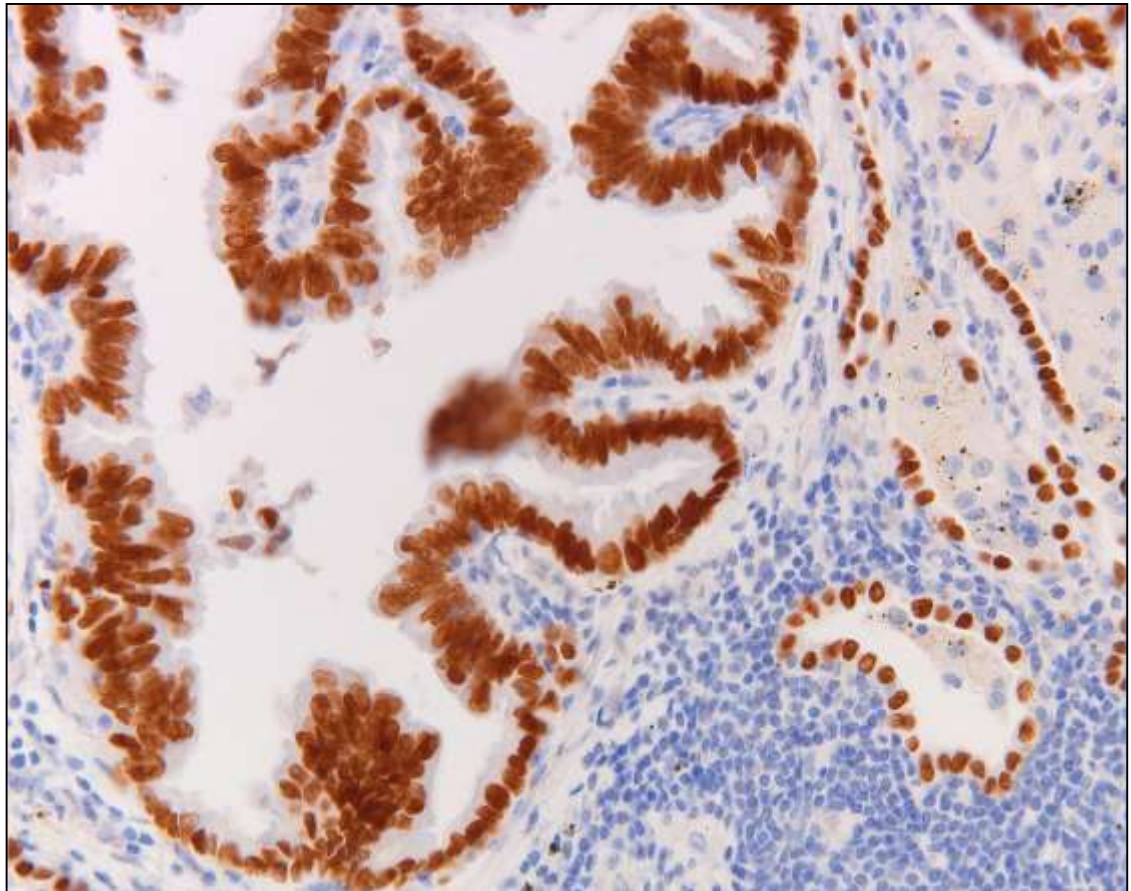


CD56



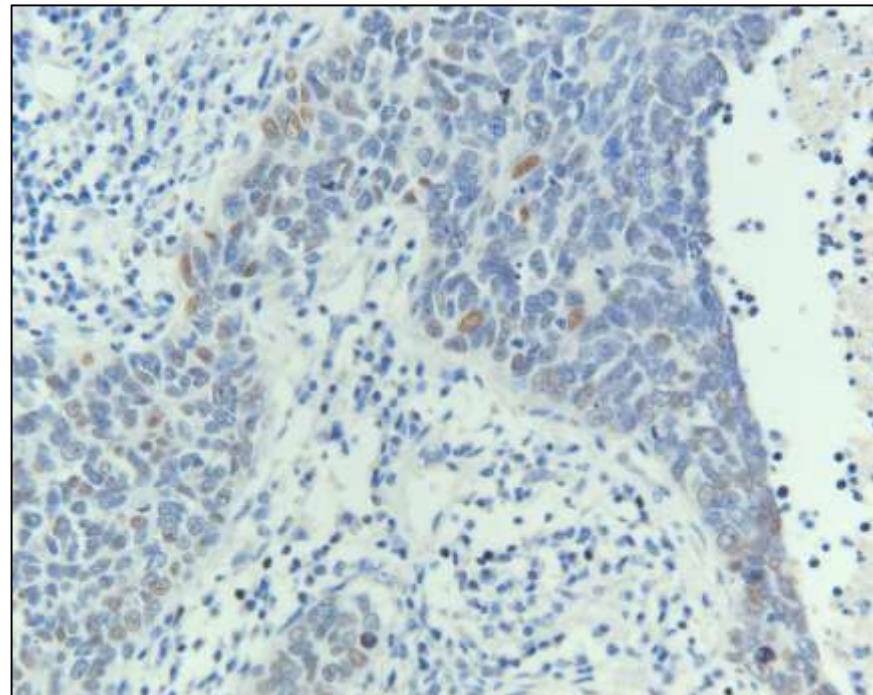
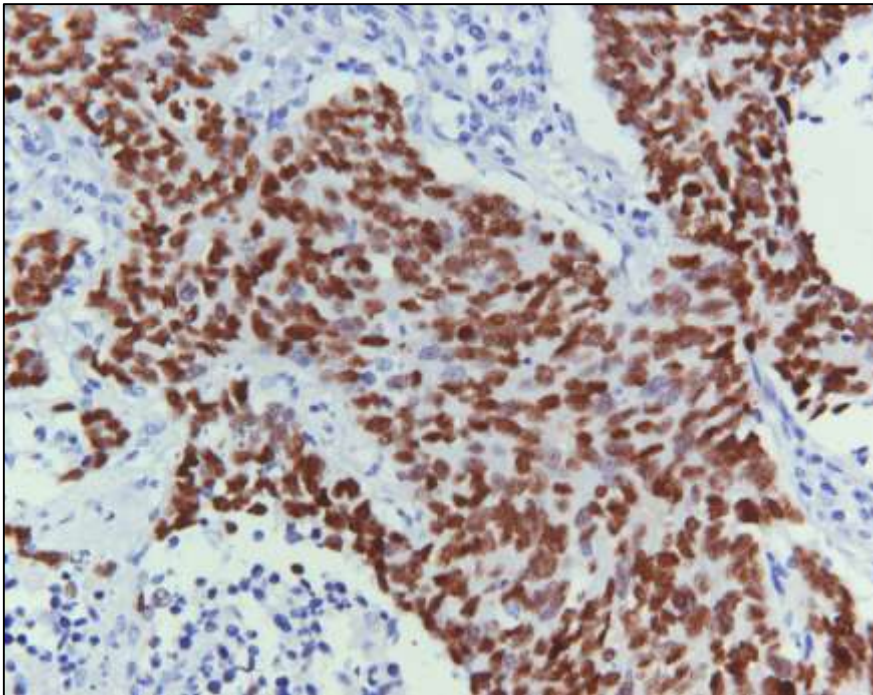
TTF1

- NK2 homeobox 1 (NKX2-1) = thyroid transcription factor 1 (TTF-1)
- Transcription factor: lung, thyroid and diencephalon
- Lung: Clara cells, type II pneumocytes

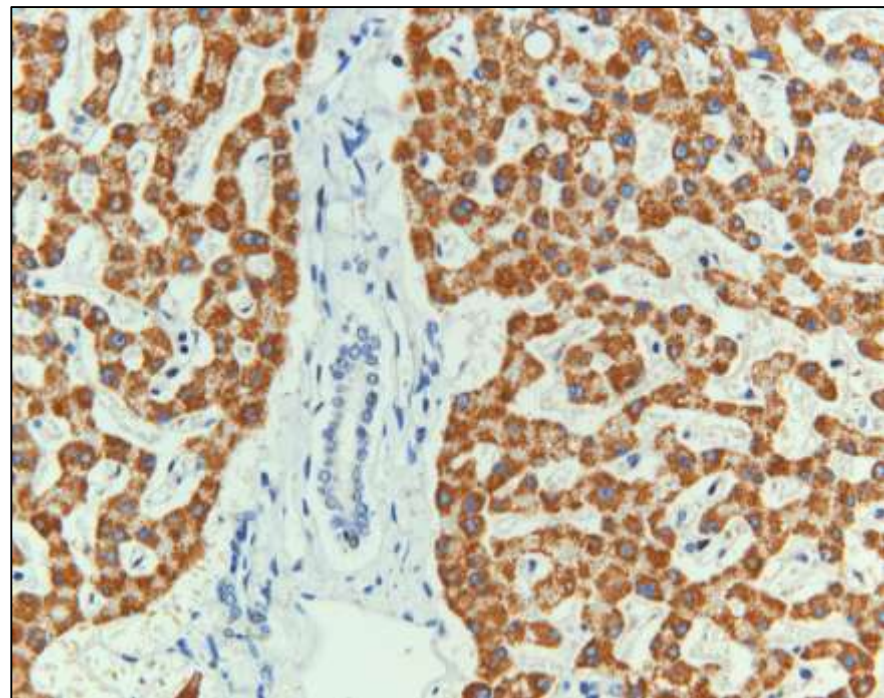
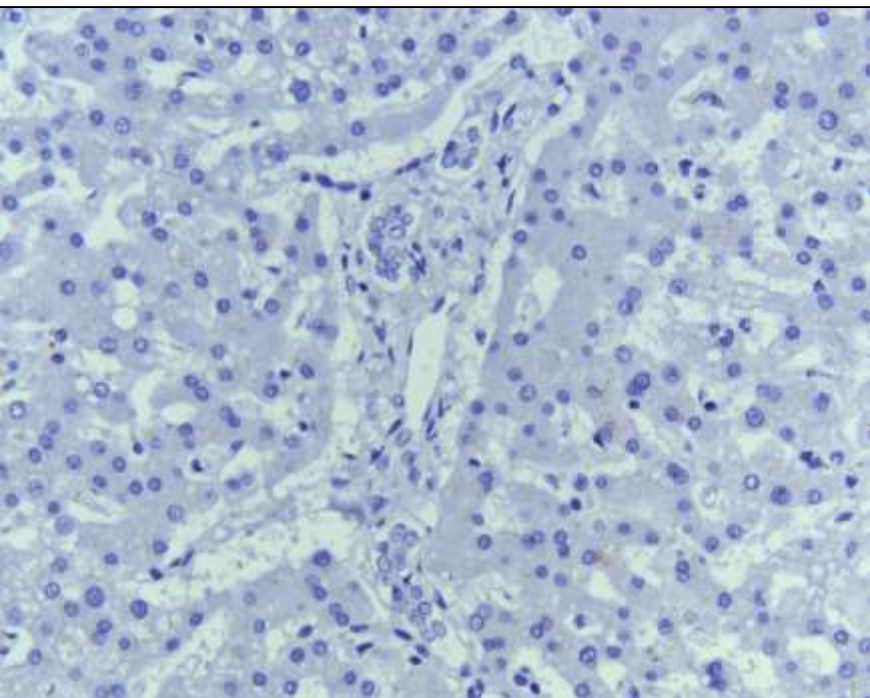


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Samenvatting 2014.6

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