

Paneth cells



Paneth cells are **cone-shaped** cells specialized in **defending** the intestinal mucosa against microbes (non-specific immunity). They are located in the crypts of the small intestine. Similar to other cells with high synthetic activity, they have a developed Golgi apparatus and a basophilic cytoplasm, the apical part of which is filled with markedly acidophilic granules containing:

- lysozyme,
- phospholipase A2,
- α -defensins.

The secretion of these granules into the intestinal lumen has an antimicrobial effect. ^[1]

Links

Related articles

- Small intestine (slide)
- Small intestine
- MALT

Reference

1. Sato T, van Es JH, Snippert HJ, et al. Paneth cells constitute the niche for Lgr5 stem cells in intestinal crypts. *Nature*. 2011;469(7330):415-418. doi:10.1038/nature09637.

Bibliography

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- JUNQUEIRA, L. Carlos – CARNEIRO, José – KELLEY, Robert O.. *Základy histologie*. 7. edition. Jinočany : H & H, 1997. 502 pp. ISBN 80-85787-37-7.



The mucous membrane of the small intestine (HE staining), Paneth cells are markedly red due to their strong acidophilia (marked with annotation - move the mouse over the image)