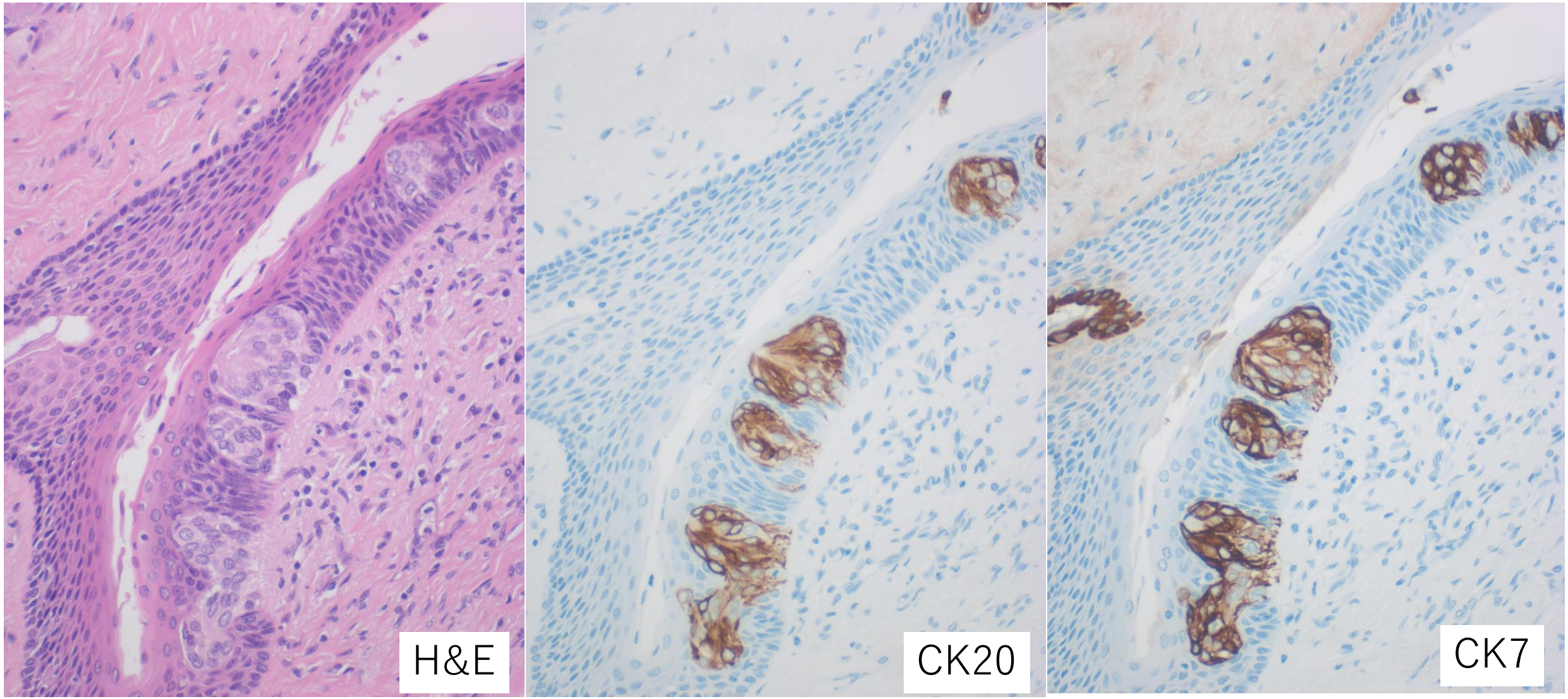
# Distribution of taste buds on the tip mucosa of the epiglottis

Taste buds are distributed not only in the mouth but also in the pharynx and larynx. The roles and functions of the extra-lingual taste buds should be clarified. The taste buds on the laryngeal surface of the epiglottis may be important in initiating reflexes protecting the airway. The epiglottis taste buds may function to feel when the food or fluid are going down on the epiglottis. For example, beer feels great going down. The author found that the tip mucosa of the epiglottis frequently contains taste buds. Expression of immunoreactivity of CK20, CK7 and synaptophysin is common between the taste buds and Merkel cells. Refer also to Sk-464-a-MENeo.

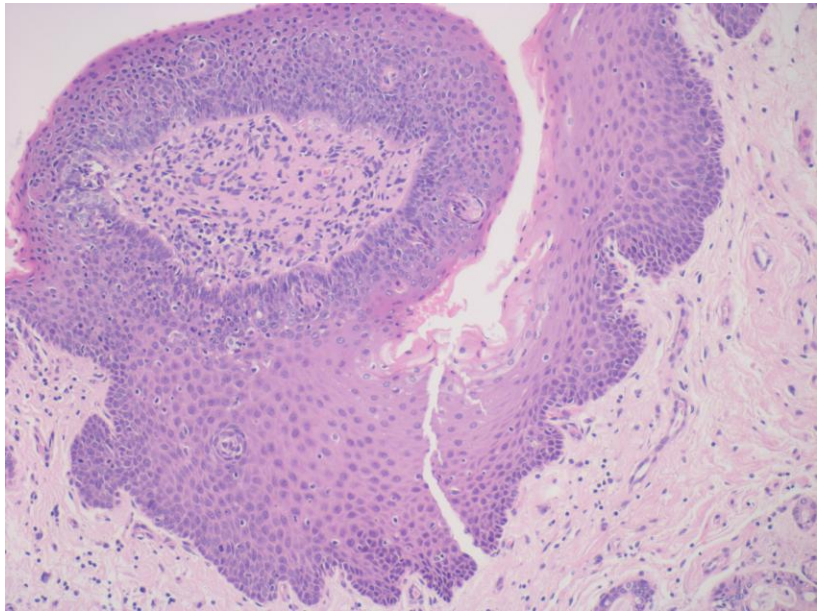
Ref.: Jowett A, Shrestha R. Mucosa and taste buds of the human epiglottis. J Anat 1998; 193(Pt 4): 617-618. doi: 10.1046/j.1469-7580.1998.19340617.x

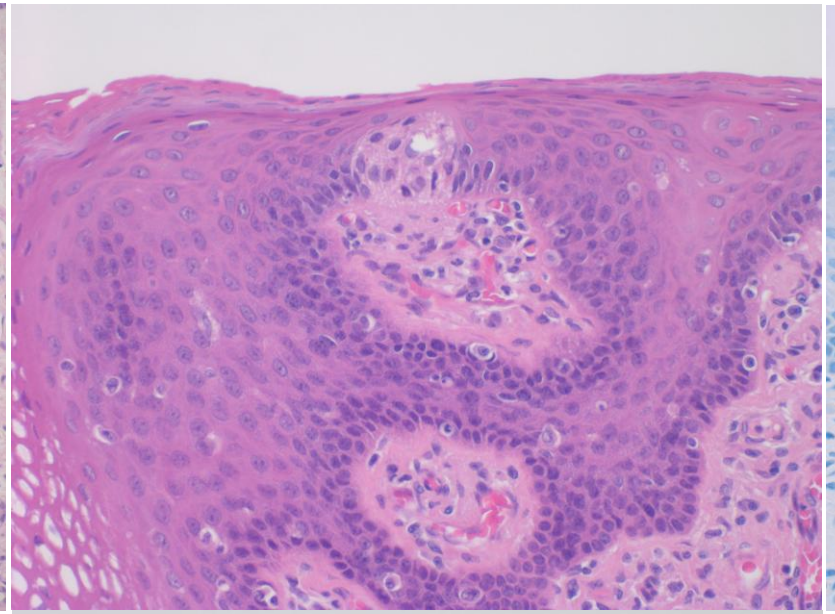
# Taste buds in vallate papilla of the tongue

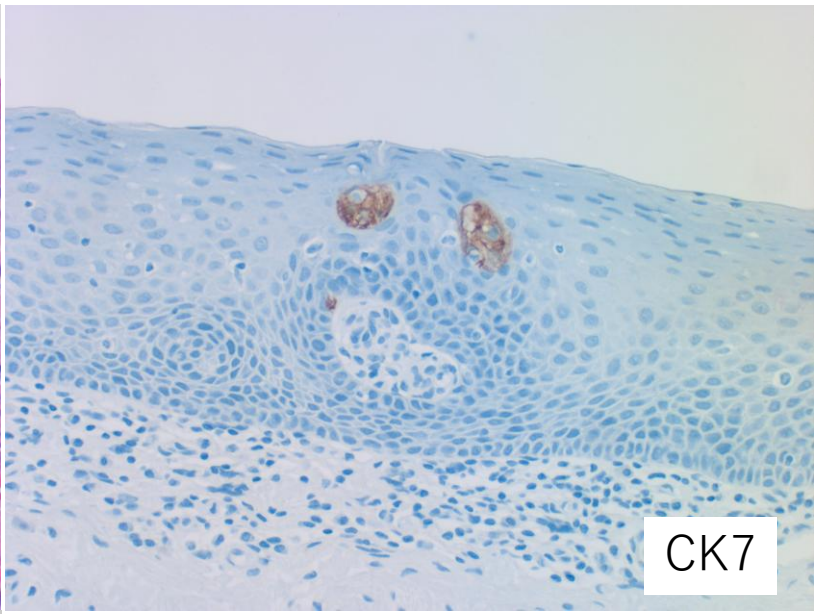


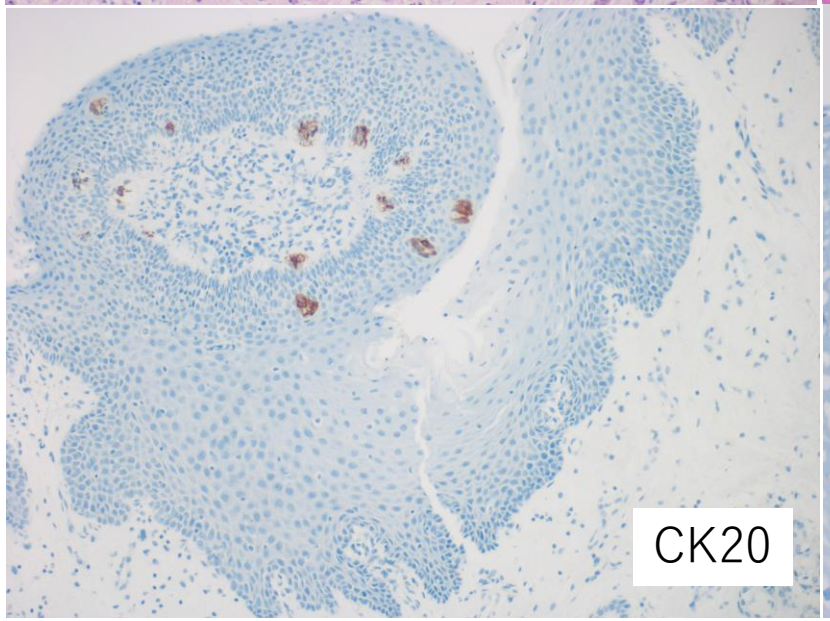

Taste buds in the vallate papilla of the tongue are clearly visualized by immunostaining for CK20 and CK7.

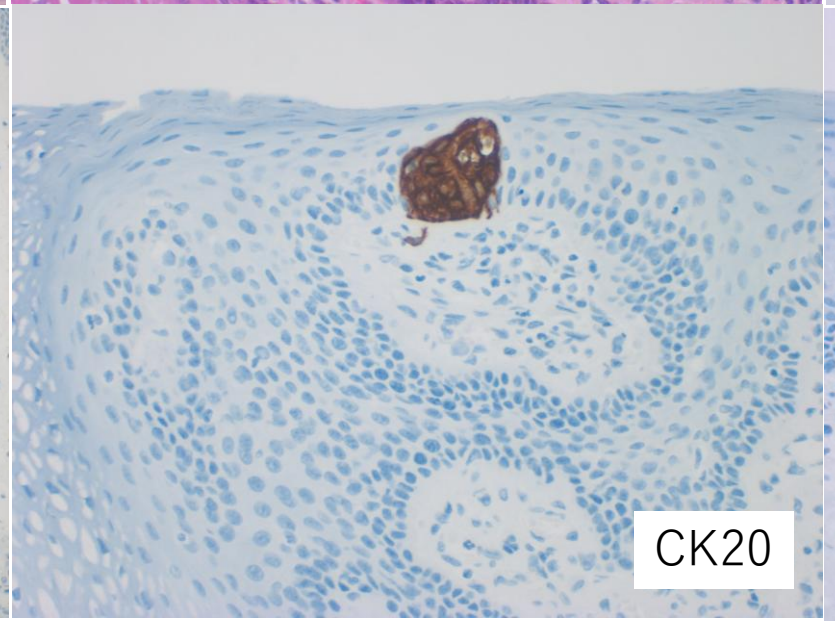
# Taste buds in the foliate papilla, filiform papilla and epiglottis

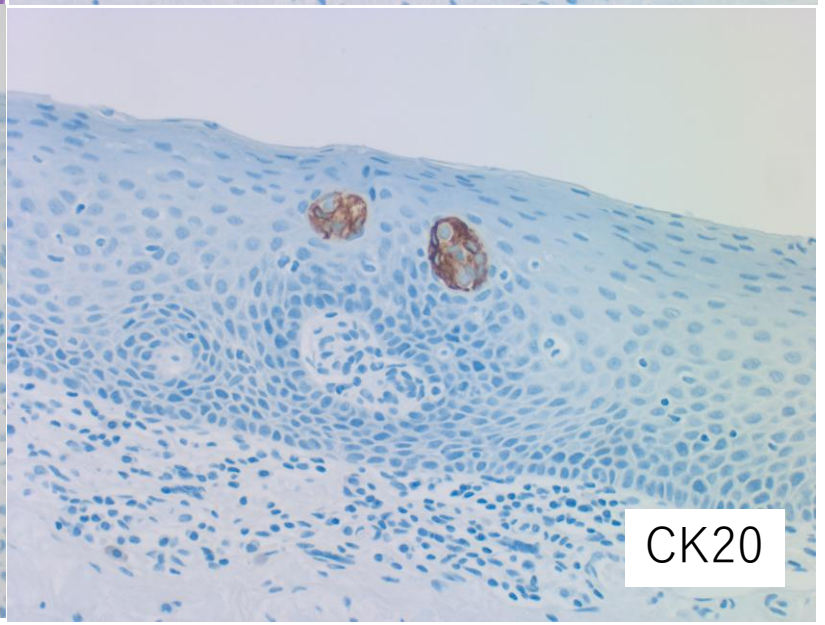






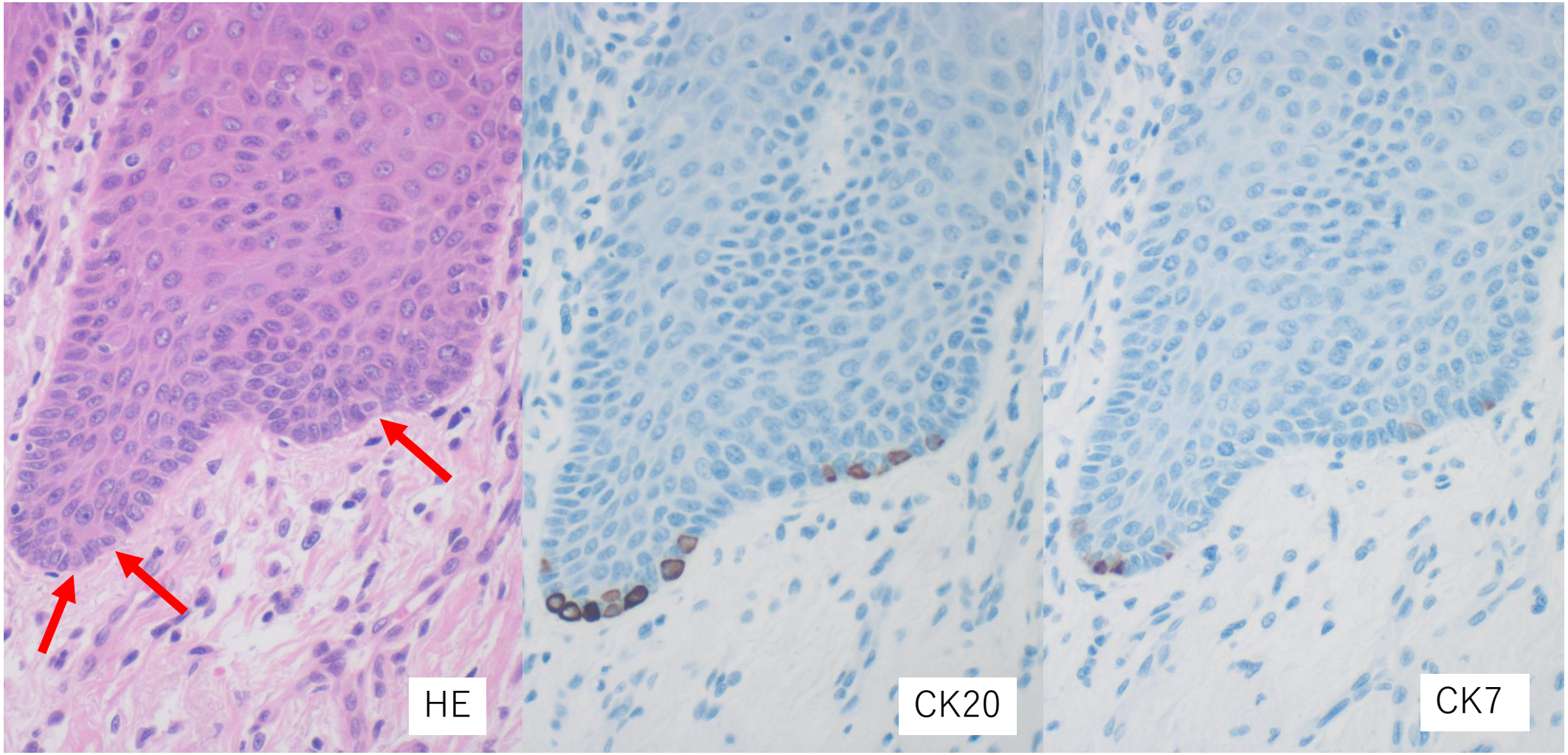




Foliate papilla of the tongue

Filiform papilla of the tongue

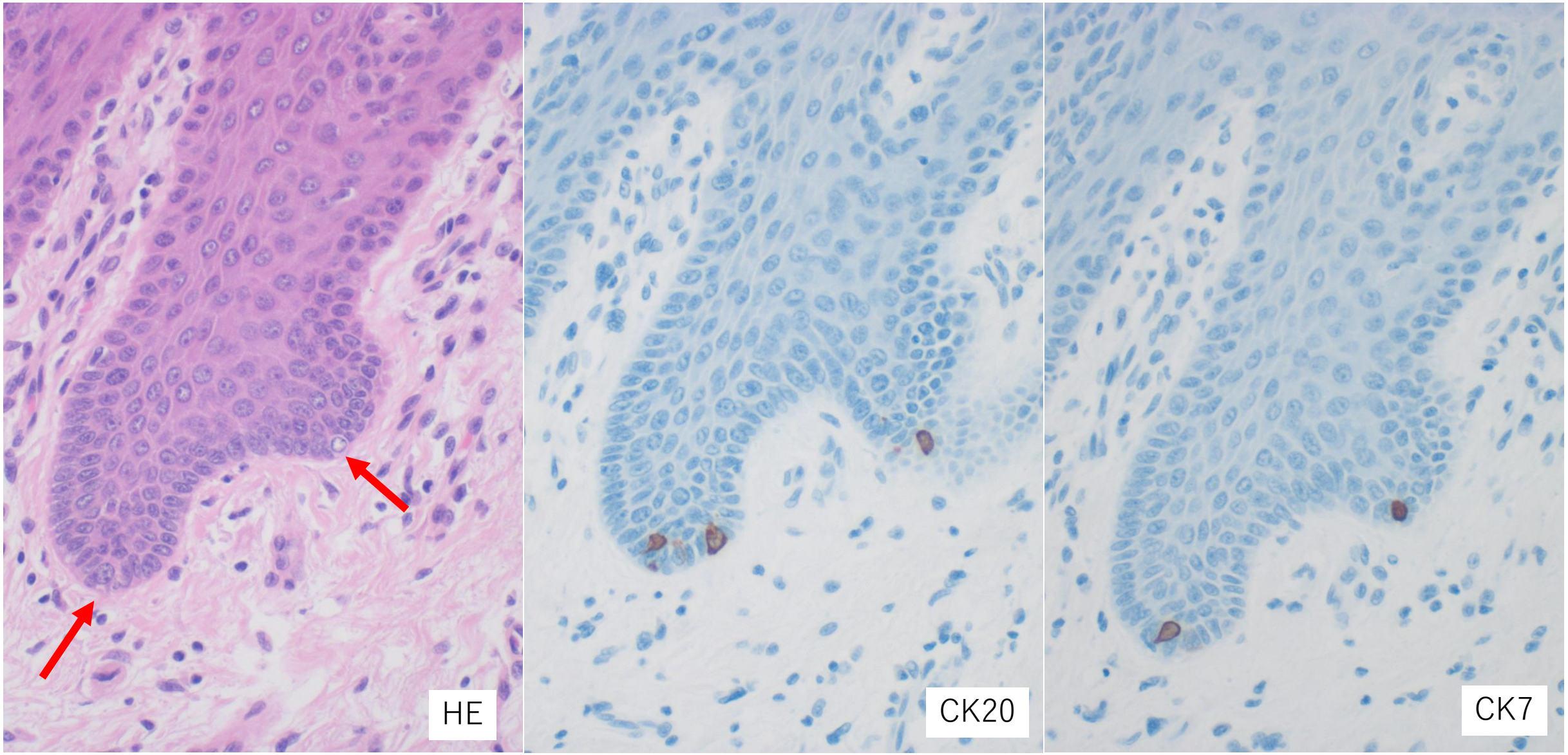
Tip mucosa of the epiglottis

# Merkel cells in the tongue mucosa (1)



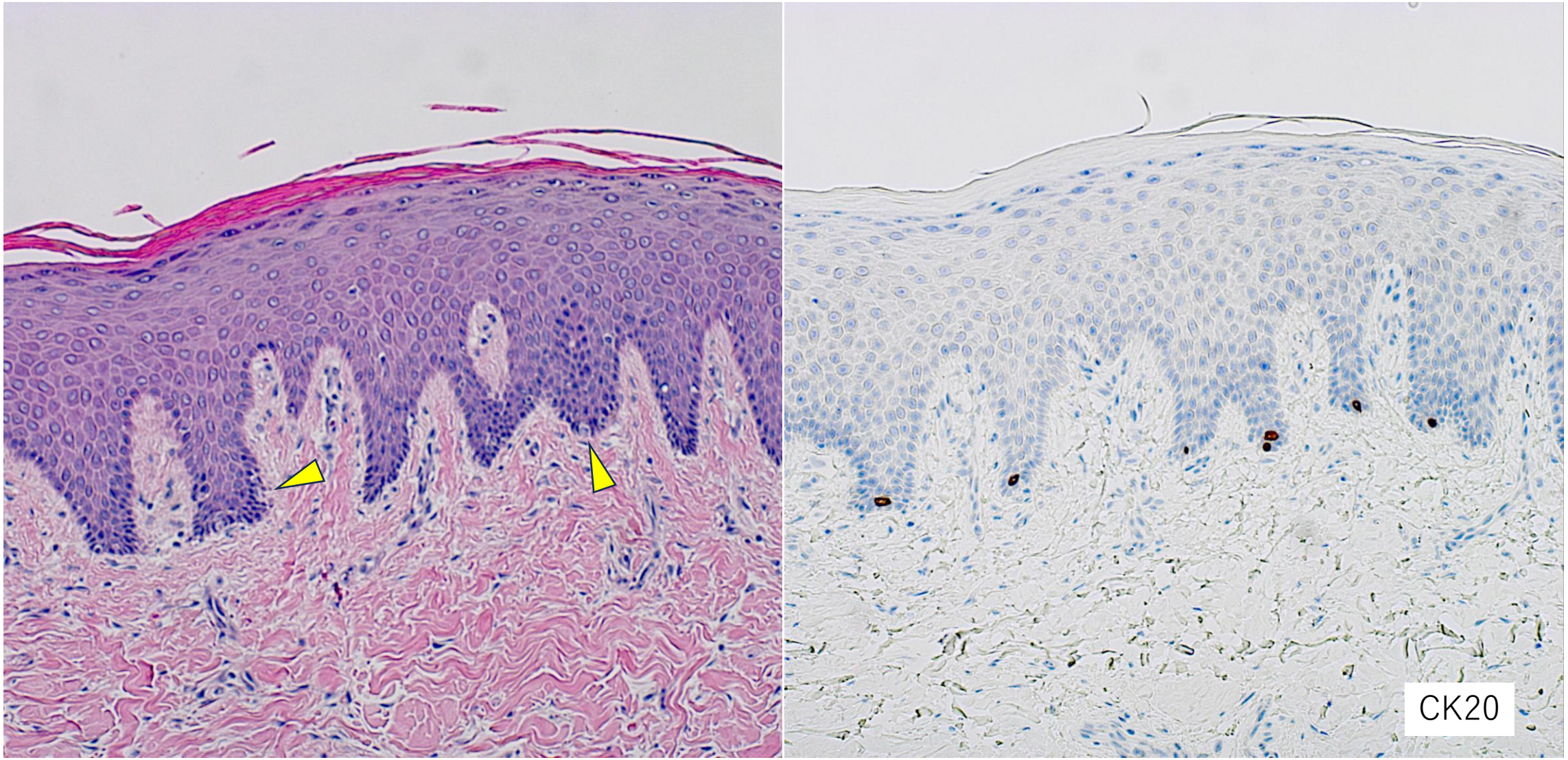

Merkel cells are located in the basal layer of the squamous mucosa of the tongue, particularly at the mucosal process, as isolated cells. They possess clear cytoplasm in H&E sections (arrows).

# Merkel cells in the tongue mucosa (2)



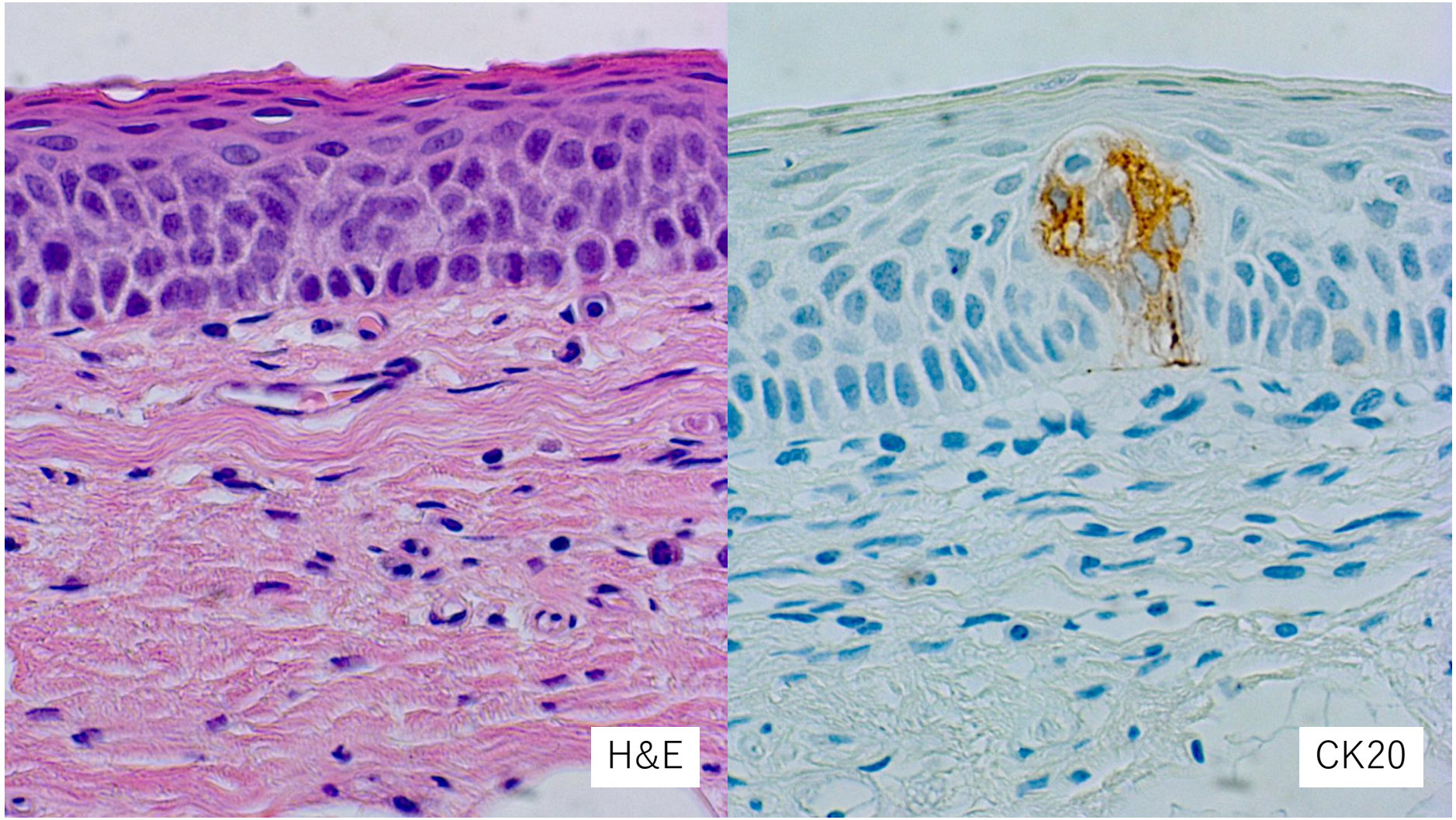

Merkel cells at the basal layer of the squamous mucosa possess clear cytoplasm in H&E sections.

# Merkel cells in the palate mucosa

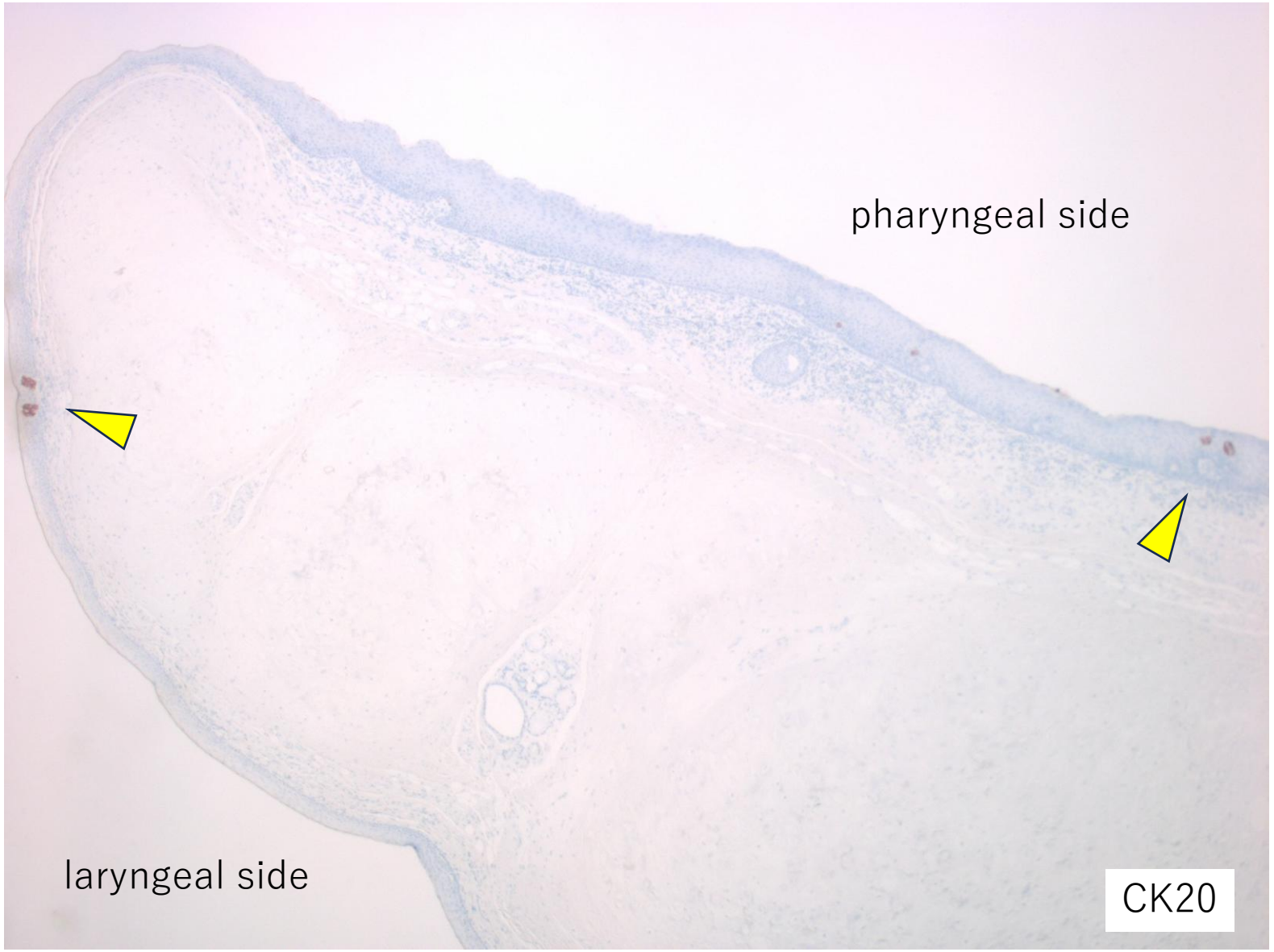



Merkel cells at the basal layer of the squamous mucosa of the palate possess clear cytoplasm in H&E sections (left: arrowheads). Isolated Merkel cells are visualized by immunostaining for CK20 (right).

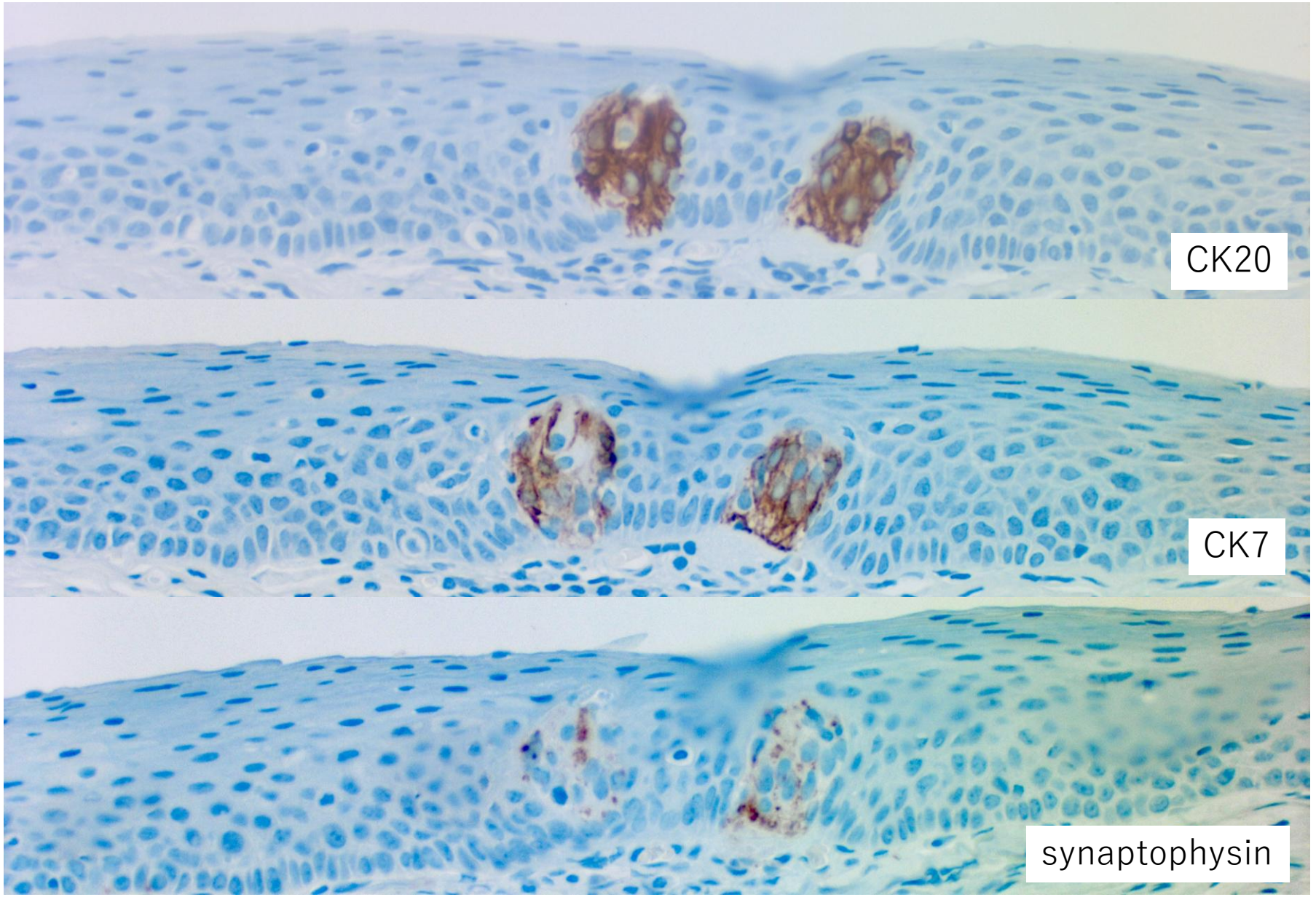
# Taste bud on the tip mucosa of the epiglottis




The taste bud, located at the tip portion of the epiglottis, consists of clustered clear cells in H&E preparations (left), and is immunoreactive for CK20 (right). The cells have contact with the basal lamina.

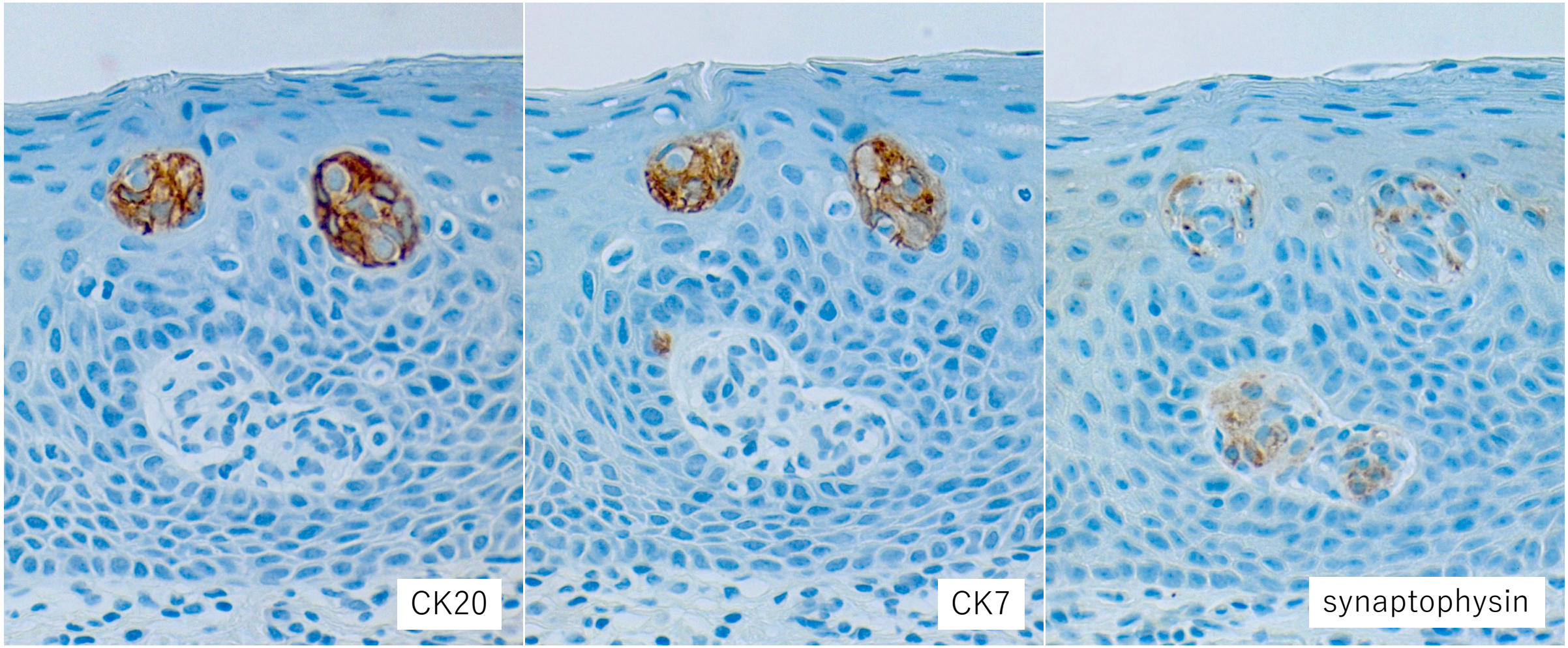



The taste buds at the tip portion of the epiglottis.  The CK20-immunoreactive taste buds are distributed on both the pharyngeal side thicker squamous mucosa and laryngeal side of the thinner squamous (arrowheads) (immunostaining for CK20).



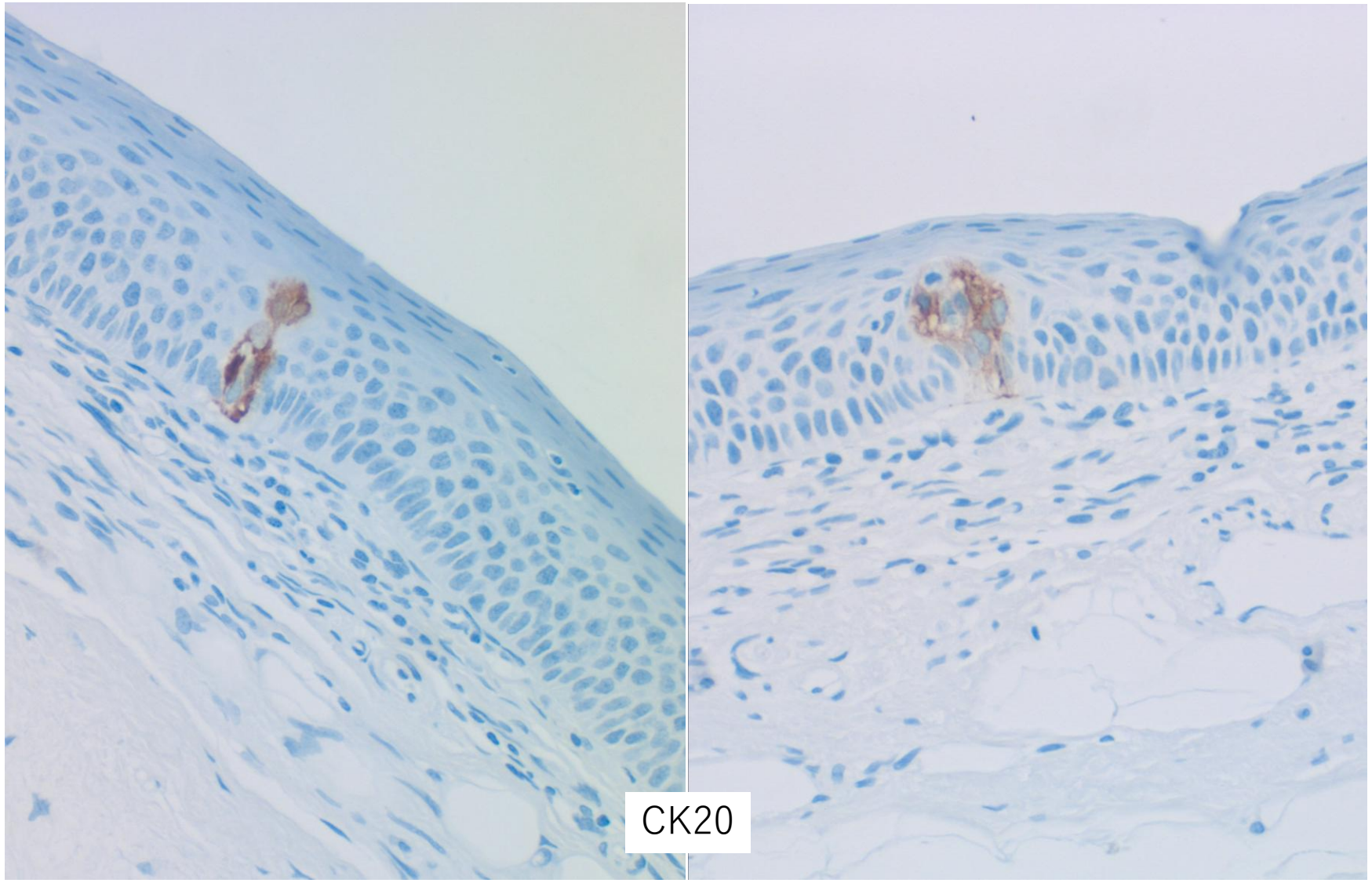

The taste bud, located at the tip portion of the epiglottis of an 84 y-o female autopsy patient, is immunoreactive for CK20 (top), CK7 (middle) and synaptophysin (bottom).

# Taste buds in the tip mucosa of the epiglottis




The taste buds, located at the tip portion of the epiglottis of an 84 y-o female autopsy patient, are immunoreactive for CK20 (left), CK7 (center) and synaptophysin (right). Nerve plexus just beneath the taste buds are labeled for synaptophysin.

# Taste bud in the tip mucosa of the epiglottis




The taste buds, located at the tip portion of the epiglottis of an 84 y-o female autopsy patient, are immunoreactive for CK20.  They look like clustered Merkel cells.