

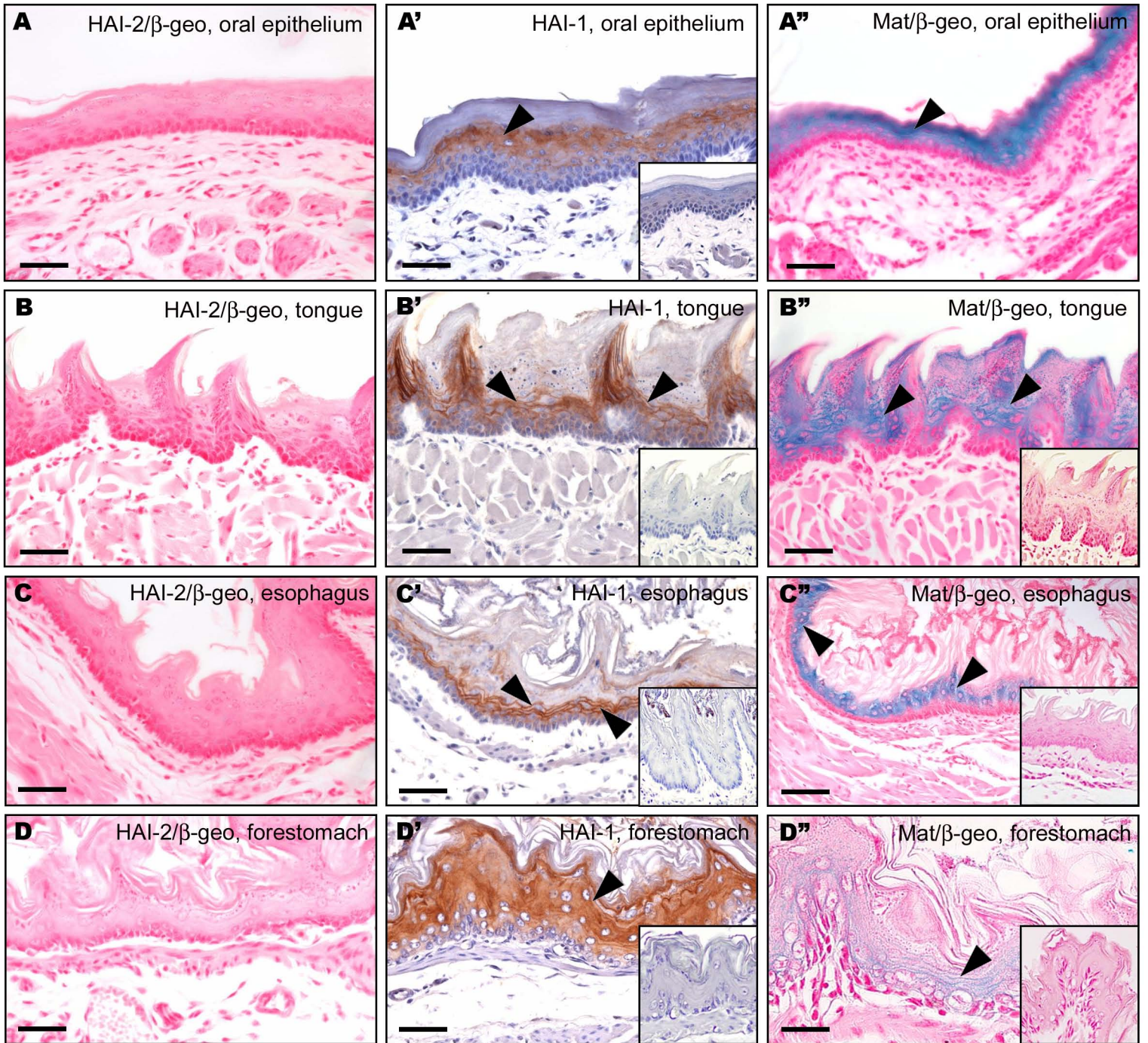
SUPPLEMENTARY FIGURE LEGENDS

Suppl. fig. 1. Expression of HAI-2, HAI-1 and matriptase in stratified epithelia of oral cavity, esophagus, and forestomach. **A-D.** X-gal staining of HAI-2 expression (blue). No HAI-2 expression was detected in epithelium of lip (**A**), tongue (**B**), esophagus (**C**) or forestomach (**D**). **A'-D'**, **A''-D''.** Immunohistochemical staining of HAI-1 expression (**A'-D'**, brown), and X-gal staining of matriptase expression (**A''-D''**, blue). HAI-1 and matriptase co-localize in the suprabasal keratinocytes of lip (**A'**, **A''** arrowheads), tongue (**B'**, **B''**, arrowheads), esophagus (**C'**, **C''**, arrowheads), and forestomach (**D'**, **D''**, arrowheads). Insets: X-gal staining of wild-type tissues (**B''-D''**), and HAI-1 immunohistochemical staining of tissues from HAI-1-deficient mice (**A'-D'**) used as negative controls. Scale bars: 50 μm (**A-D'**).

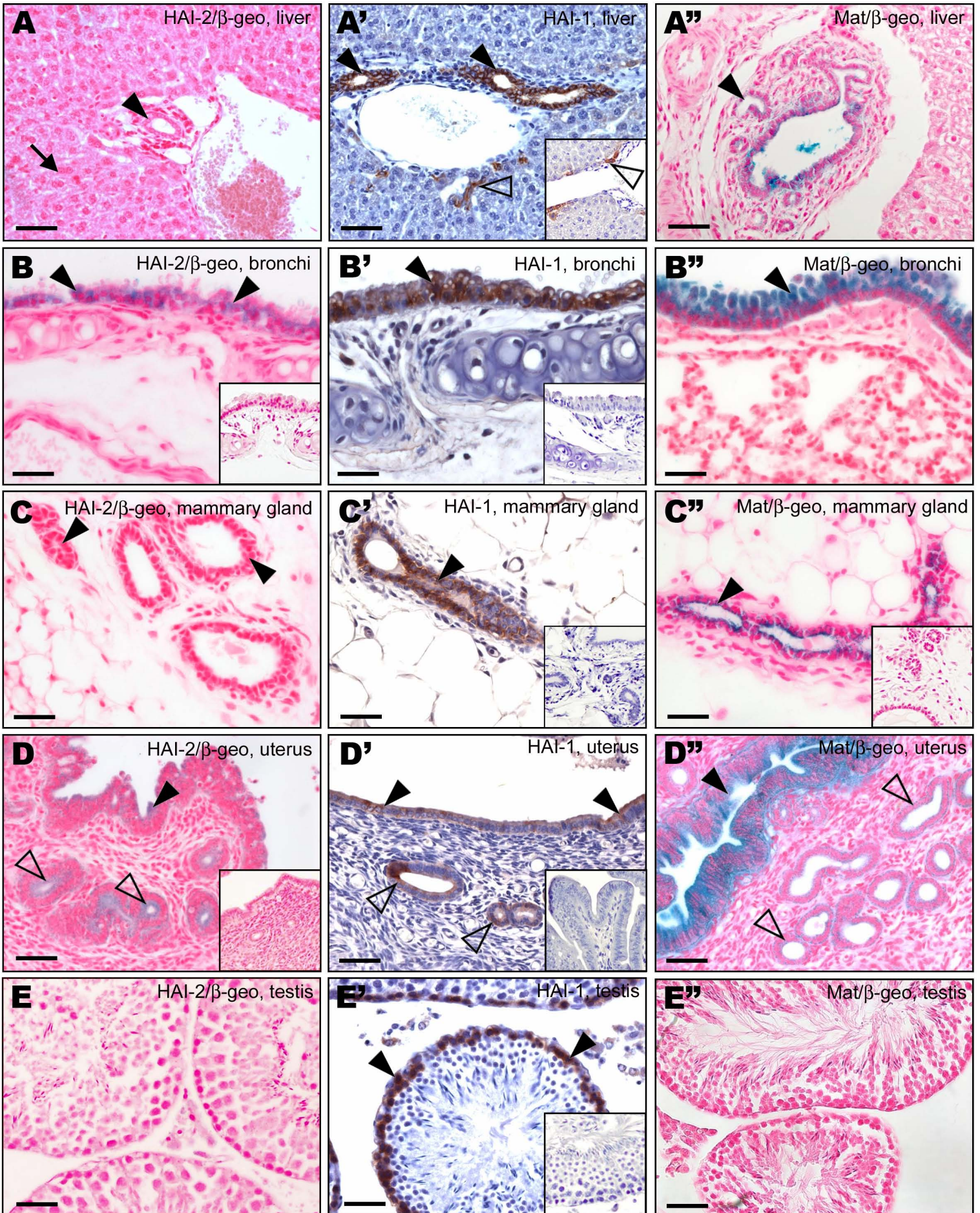
Suppl. fig. 2. Expression profiles of HAI-2, HAI-1, and matriptase in liver, bronchi, mammary gland, uterus, and testis. **A-E.** X-gal staining of HAI-2 expression (blue). **A'-E'** immunohistochemical staining of HAI-1 expression (brown), **A''-E''** X-gal staining of matriptase expression (blue). HAI-2 protein was detected in the ciliated epithelium of bronchi (**B**, arrowheads) and in epithelial cells of uterus (**D**, arrowhead) and uterine glands (**D**, open arrowheads). No HAI-2 staining was observed in liver hepatocytes (**A**, arrow), in epithelium of bile ducts (**A**, arrowhead), mammary gland epithelium (**C**, arrowheads), or in testis (**E**). HAI-1 and matriptase co-localized in epithelial cells of bile ducts (**A'**, **A''**, arrowheads), bronchi (**B'**, **B''**, arrowheads), ductal epithelium in mammary gland (**C'**, **C''**, arrowheads), in epithelial cells of uterus (**D'**, **D''**, arrowheads) and uterine glands (**D'**, **D''**, open arrowheads). In addition, HAI-1 but not matriptase was expressed in undifferentiated spermatogonia in semiferous tubules in testis (**E'**, arrowheads). The immunostaining seen near portal veins in liver (**A'**, open arrowhead) is non-specific as the same signal was present in tissues of animals expressing no HAI-1 protein (inset of **A'**, open arrowhead). Insets: X-gal staining of wild-type tissues (**B**, **C''**, **D**), or HAI-1 immunohistochemical staining of tissues from HAI-1-deficient mice (**A'-E'**) used as negative controls. Scale bars: 75 μm (**A-A''**, **D-D''**), 50 μm (**B-B''**, **C-C''**, **E-E''**).

Suppl. fig. 3. Expression of HAI-2, HAI-1, and matriptase in salivary glands. **A**, **B.** X-gal staining of HAI-2 expression (blue). No HAI-2 was detected in submandilular (**A**) or sublingual (**B**) gland. **A',B'**. Immunohistochemical staining of HAI-1 expression (brown). **A'', B''.** X-gal staining of matriptase expression (blue). Both proteins are expressed in ductal epithelium in submandilular (**A'**, **A''**, arrowheads) and sublingual (**B'**, **B''**, arrowheads) glands. Insets: X-gal staining of wild-type tissues (**A''**, **B''**), or HAI-1 immunohistochemical staining of tissues from HAI-1-deficient mice (**A'-B'**) used as negative controls. Scale bars: 30 μm .

Supplementary figure 1



Supplementary figure 2



Supplementary figure 3

