

Buffering the pH of the Culture Medium Does Not Extend Yeast Replicative Lifespan

During chronological aging of the budding yeast cells, the culture medium can become acidified and this acidification limits cell survival. As a consequence, buffering the culture medium to pH 6 significantly extends chronological life span under standard conditions in synthetic medium.

In this study, we assessed whether a similar process occur during replicative aging of yeast cells.

We find no evidence that buffering the pH of the culture medium to pH levels either higher or lower than the initial pH of the medium is able to significantly extend replicative lifespan. Thus we conclude that, unlike chronological life span, replicative life span is not limited by acidification of the culture medium or by changes in the pH of the environment.