```
his_list_rep_wd  THM

⊢  ∀'a:S.
   all
   (λr:hprod((hnum → 'a); hnum
             ). equal
                (is_list_rep(r)
                ,exists
                 (λf:hnum → 'a. exists
                                (λn:hnum. equal
                                          (r
                                          ,pair
                                           ((λm:hnum. cond
                                                      (lt(m,n)
                                                      ,f(m)
                                                      ,select
                                                       (λx:'a. t)))
                                           ,n))))))
  by Unab [`his_list_rep`] THEN HN THEN StrongAuto
     THEN
     Try (Complete (Unfold `label` 0))
END
```